R E P O R T R E S U M E S

ED 016 462 JC 670 807

EXCELLENCE IN TERMINAL EDUCATION, PROCEEDINGS OF THE ANNUAL JUNIOR COLLEGE ADMINISTRATIVE TEAMS INSTITUTE (3RD, DAYTONA BEACH, JULY 29-AUGUST 2, 1963).

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PUB DATE 63

EDRS PRICE MF-$0.50 HC-$4.24 104P.

DESCRIPTORS- *JUNIOR COLLEGES, *TERMINAL EDUCATION, *COLLEGE ROLE, GENERAL EDUCATION, TECHNICAL EDUCATION, ADMINISTRATIVE ORGANIZATION, NURSING, HIGH ACHIEVERS, LOW ACHIEVERS, VOCATIONAL EDUCATION, REHABILITATION, STATE PROGRAMS, FEDERAL PROGRAMS, CONFERENCE REPORTS,

THIS DOCUMENT IS A COMPILATION OF FOUR ADDRESSES AND FOUR PANEL PRESENTATIONS CONCERNING JUNIOR COLLEGE TERMINAL EDUCATION. CONSIDERATION WAS GIVEN TO THE NATURE AND PURPOSES OF TERMINAL EDUCATION, THE ROLES OF GENERAL AND SPECIALIZED EDUCATION, AND DESCRIPTIONS OF PROGRAMS RELATED TO TERMINAL EDUCATION AT THE NATIONAL, STATE, AND LOCAL LEVELS. EXAMPLES OF SPECIFIC INSTITUTIONAL PROGRAMS WERE DISCUSSED--(1) A TECHNICAL INSTITUTE PROGRAM, (2) NURSING EDUCATION, (3) GUIDED STUDIES AT VARIOUS LEVELS OF STUDENT ABILITY AND ACHIEVEMENT, AND (4) REHABILITATION PROGRAMS. (WO)

ERIC

Excellence in Terminal Education

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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EXCELLENCE IN TERMINAL EDUCATION

Proceedings of the

Third Annual Junior College Administrative Teams Institute

Daytona Beach, Florida - July 29-August 2, 1963

Southeastern Regional

Junior College Administrative Leadership Program

sponsored jointly by the

University of Florida and Florida State University

under a grant from the

W. K. Kellogg Foundation

Copies available from:
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University of Florida
Gainesville, Florida

MAR 1 1968

CLEARINGHOUSE FOR JUNIOR COLLEGE INFORMATION

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INTRODUCTION

The Third Annual Junior College Administrative Teams Institute was held on the campus of Daytona Beach Junior College and the campus of Volusia County Community College, Daytona Beach, Florida, July 29 - August 2, 1963.

One hundred and forty-eight junior college presidents and administrators from forty-five public and private junior colleges in nine southeastern states participated.

This report contains the major addresses delivered during the Institute.

PROGRAM

Sunday, July 28

8:00 p.m.	Reception, Mary Karl Memorial Library Daytona Beach Junior College

Monday, July 29

9:00 a.m.	Registration, Technology Building Daytona Beach Junior College
	First General Session - Robert R. Wiegman, University of Florida, presiding
9:30 a.m.	Musical Number - Hollace E. Arment, Chairman Humanities and Music Department Daytona Beach Junior College
	Invocation - William S. Hayes, Director Alice Lloyd College
	Welcome - Roy F. Bergengren, Jr., President Daytona Beach Junior College
	Address - "What is Excellence?" William G. Dwyer, President Orange County Community College
11:00-11:30	Coffee Break
11:30-12:30	Small Group Discussions (groups based on positions)
1:00-2:30	Lunch
2:30-3:30	Small Group Discussions (groups based on size of college)
3:30	Tour of Daytona Beach Junior College Campus

Tuesday, July 30

	Second General Session - Raymond E. Schultz, Florida State University, presiding
9:30 a.m.	Musical Number - Herbert C. Harris, Music Faculty Volusia County Community College

Address - "Organizing for Excellence"
Edwin H. Miner, President
Voorhees Technical Institute

11:00-11:30 Coffee Break

11:30-12:30 Panel - Reaction to Address
T. O'Banion, Central Florida Junior College
Sidney E. Sandridge, Dean and Academic Vice President
Ferrum Junior College
J. G. Chambliss, Associate Professor of Agriculture
and Director of Terminal Program, Agricultural,
Mechanical, and Technical, Abraham Baldwin
Agricultural College
W. D. Coleman, Business Manager, Hiwassee College
O. H. Laine, President, Catonsville Community College

1:00-2:30 Lunch

2:30-3:30 Small Group Discussions (groups based on type of control)
(The groups will meet at Volusia County Community College)

<u>Wednesday, July 31</u>

Third General Session - Willis A. LaVire,
University of Florida, presiding

9:30 a.m. Musical Number - Hollace E. Arment

Panel - "Excellence in Action" - Technical Education

"National Level" - Ken A. Brunner, Specialist,
Higher Education Branch, U. S. Office of Education

"State Level" - Tom Strickland, Consultant,
Technical Education, State Department of Education

"Local Level" - W. Robert Halstead, Director
Gaston Technical Institute

11:00-11:30 Coffee Break

11:30-12:30 Question the Panel

1:00-2:30 Lunch

2:30-3:30	Panel - "Excellence in Action" - Specialized Programs
	"Nursing Programs" - Mildred Tuttle, Director, Division of Nursing, Kellogg Foundation
	"Guided Studies" - Gordon Pyle, Instructional Dean and Dean of Academic Studies, Miami-Dade Junior College
	"Rehabilitation Programs in Junior Colleges" - David Legate, Coordinator of Rehabilitation, Florida Institute for Continuing University Studies
3:30-4:30	Question the Panel

Thursday, August 1

	Fourth General Session - Maurice L. Litton, Florida State University, presiding
9:30 a.m.	Musical Number - Herbert C. Harris
	Address - "The Price of Excellence" Harry M. Philpott, Vice-President University of Florida
11:00-11:30	Coffee Break
11:30-12:30	Small Group Discussions (groups based on positions)
1:00-2:30	Lunch
2:30-3:30	Films - "Idea With a Future" Brademus Film Education, Manpower and National Needs Nursing: The Junior College Doorway
3:30-4:00	Coffee Break
4:00	Continue Film Showing

Friday, August 2

	Fifth General Session - Robert R. Wiegman, University of Florida, presiding
9:30 a.m.	Musical Number - Hollace E. Arment
	Address - "Frontiers for Excellence" Kenneth McFarland

11:00-11:30	Coffee Break
11:30-12:00	Wrap-up
12:00	Adjournment

INSTITUTE STAFF

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Daytona Beach Junior College

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Florida State University and Director, Kellogg Junior
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Daytona Beach Junior College

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Colleges, State Department of Education

Robert R. Wiegman, Professor of Education, University of Florida
and Director, Kellogg Junior College Program

KELLOGG FELLOWS

Frederick Boyle, University of Florida
Philip Goldhagen, University of Florida
Arthur Cohen, Florida State University
John Roueche, Florida State University

WHAT IS EXCELLENCE?

William G. Dwyer, President
Orange County Community College

Mr. Chairman, ladies and gentlemen, the opportunity to speak to you at this conference is a most welcome and flattering privilege. The large number of people attending this conference on a curriculum matter is a most encouraging sign. A couple of months ago I was at the A.A.J.C. office in Washington and our conversation turned to the membership of the Curriculum Commission. I was informed that relatively few administrators choose curriculum as their first interest; most prefer devoting their time to problems of administration, legal matters, finance, and teacher preparation. No one would deny the importance of these areas, but to my thinking they all exist for the implementation of the curriculum, which directly affects the student. My congratulations, therefore, to all of you for your interest in this basic educational area.

Congratulations are also in order to the people who organized this workshop, for their courage or ignorance in using the title "Terminal" Education. Sometimes we waste more thought and energy in worrying about the implication of certain words than we use in discussing or finding solutions to the vital problems. Could we, for a few moments, accept "Terminal Education" to mean those curriculums that are directed toward the completion of an organized education program that is of two years' duration, and realize that most students so enrolled will terminate their formal education with their experience at the junior or community college? Let us, at least temporarily, forget the objection that no education today is terminal, and accept the fact that everyone, regardless

of occupation, must continue to study and learn if he is to remain current in his business, profession, or civic life.

This quibbling about the connotation of "terminal" is just as ridiculous as the argument against the title "junior" college. Possibly in some areas of the country where the two-year college is an innovation, administrators may worry about the public reaction and the question of "junior to what?" Oddly enough, I have never heard the public express this concern--only junior college people seem to worry about status and reveal the hope of emulating a local liberal arts college or the state university. I happen to prefer the title "community college," not in terms of local community needs--our students are much too mobile to prepare them only for jobs in their own towns or counties--I prefer to think of the two-year college as representing a community of interests and programs.

The first premise, therefore, on which this paper is based is that the junior or community college is the institution to offer two-year post-high school curriculums. I am aware that "post-high school" is a term open to debate. It is my contention that any high school graduate or student of post-high school age should find in a junior college a curriculum which is designed for transfer or for some form of Terminal Education. Since transfer programs are for the most part mandated by the receiving college and since this function of the junior college is not our subject, little mention will be made of it.

For many years we have boasted of the unique philosophy of the junior college; this uniqueness can be realized when the institution recognizes and makes provision for the diversity of interests, abilities

needs and changing vocational goals of the individual student. Youngsters cannot be channeled at a given age into an education pattern that is determined at any time by a paper and pencil test. Long term studies have shown that choices or assignments made in high school have little bearing on the eventual occupational choice of the individual student. Further evidence of the lack of persistence in vocational choice may be appreciated when one considers the fact that of college graduates, only one in five is doing work related to his major in college. A mobility of students and a flexibility of program must be provided for if individual needs and abilities of students are to be served. The uniqueness of philosophy should also be evident in the contrast between the sink-or-swim philosophy of the university and the teach-how-to-swim approach of the junior college. Nationally, the attrition rate at the university is about 60% of the entering class. Unfortunately, the percentage of loss is not much less at the two-year college. In teaching how to swim we cannot expect every student to learn the crawl. Some will be served best by learning the back-stroke or the butterfly; or, for some the dog-paddle will make possible a more constructive economic, civic, and family life. I cannot refrain from carrying this metaphor one step further: a student who learns only to be a floater doesn't need a junior college education, and quite obviously he is not interested in making progress.

Fundamental to the application of this unique philosophy is the recognition of the different levels of academic competence and skill required for various occupational goals. Our failure to recognize these differences is evident in our high attrition rate; we have been denying our uniqueness. We must, therefore, accept certain concepts if we are

to achieve excellence in terminal education:

1. Post-high school education is already a necessity if young people are to be competitive in the labor market. Increased skills and knowledge are required for the many more complex operations in business and industry. The number of people reported in unskilled jobs is decreasing, emphasizing even more the need for additional training beyond the secondary level if the young people are to be qualified for job requirements.
2. Graduates of high schools represent varying levels of ability, achievement, and interests. If we are to be educationally sound, we must begin education on the community college level at the point where the individual high school graduate ended his secondary career.
3. More people need education and people need more education. Not only do high school graduates need additional training and education, but there is the whole problem of retraining for the more complex requirements of our economic system and for the complexity of our society as well. This means that specialized skill subjects alone are not enough if the two-year college is to do an honest job in the education of citizens in this country.
4. Machines can and will replace specialized knowledge and skills, but human beings must learn values if citizens, homemakers, and critical thinkers are the goal of education.

Obviously, these concepts imply that some subject matter will duplicate courses offered on the high school level. Interestingly

enough, such duplication will not be a break with the tradition already in practice. Even our most select senior colleges have been teaching mathematics, English usage, foreign language, typing, shorthand, literature and history which were available on the secondary level. I can see no objection, therefore, when the junior college includes courses usually found in the area of vocational education. At a July, 1963 conference in New York City, representatives of business and industry, meeting with educators, were unanimous in expressing a preference for the tyo-year graduate who has occupational training after high school. The added maturity of the student makes possible an understanding of theory and principle beyond the acquisition of skills learned by repetition only.

This introduction has tried to establish a framework within which we may consider the requisites for excellence in terminal education. Unfortunately, there is a tremendous difference in the interpretation of the junior college philosophy not only among states but also among the institutions in a given state. A comparison of practice between Florida and Ohio, or Michigan and Indiana, or New York and Pennsylvania, or California and Iowa, will reveal immediately great discrepancies in philosophy and implementation.

I should like to add only one more observation as an indication of our inconsistencies. The purpose is not to belittle but rather to indicate that what is practiced in one area of curriculum should be applicable in all areas. Transfer programs are carefully calculated to meet the requirements of the receiving colleges. Our faculties are so oriented that there is little difficulty in providing academically comparable

courses. The time and study devoted to the identity of the goals of English I, English 101, Freshman English, Communication Skills (Whatever the first year may be called) to make sure that what is offered on the two-year campus is similar to that offered at the university, is evidence of the effort which is possible in determining course content. The same procedure has been followed in mathematics, new or old, and in the sciences. An equal amount of time and effort has not been devoted to terminal programs. Granted, there has been some attempt to identify the general areas necessary for the desired competence, but the specific content, the specific skills, the academic level--these have not been identified.

This initiative on the part of the junior college is the first major point I should like to make for the achievement of excellence in terminal education. The two-year college must assume the responsibility for determining the level of academic competence and the degree of skill necessary for a given occupation. The associate degree in nursing exemplifies best what has been done. An entirely new curriculum was developed in terms of the knowledge and skill expected of a beginning bedside nurse. The approach to the problem was not to consider first what was being taught in the traditional school of nursing. The first consideration was what is expected in the occupation.

In the engineering related technologies we can look with much hope to two studies which are nearing completion. Although the approach in both cases is not all that might be desired, at least a sincere effort is being made to identify the various levels of knowledge and skill necessary for different types of technical occupations. A review of catalogs from various sections of the country would indicate that little

thought has been given to the precise requirements of these various levels of the engineering-related technologies. For our purposes we need not consider the prescribed two-year curriculum required for transfer to an engineering college. Karl Werwath, President of the Milwaukee School of Engineering, is identifying three levels of engineering-related terminal education: The engineering or science technician must receive a program comparable in difficulty to, but different in objective from that offered the pre-engineering student. The second category, that of the industrial technician, requires knowledge and judgment of a not-so-high level; nor is he responsible for the critical decisions required of the science technician. Some of his duties would require the performance of various skilled operations. The third category would include competences usually expected of those who have worked up through apprenticeships in the past, and their preparation would consist much more of skill than judgment. Almon L. Geiss of Oregon Technical Institute in Klamath Falls is completing a year-long study of the exact level of mathematics and related occupational competences necessary in four categories, again excluding the pre-engineering curriculum.

In the medically-related occupations we have seen that the American Association of Clinical Pathologists has unrealistically added a year of college work before entering the laboratory for on-the-job training. Because medical technicians are scarce and their status increased through a four-year college degree, medical laboratories cannot afford such over-trained people for the usual laboratory work. A recent experience on our own campus is good evidence of how we must identify what is actually needed on the job in the way of professional skill. We invited a doctor,

who supervises the laboratory work for several hospitals, to discuss with us how we might supply much needed personnel in the laboratories. In considering academic requirements, the doctor recommended chemistry, biology, physics, and at least college algebra. Further questioning about the relationship of each of these subjects to the specific requirements of the job resulted in the ready admission that physics wasn't really necessary; biology might help but wasn't essential; and a student really needed only simple arithmetic and a knowledge of how to handle formulas. Only chemistry remained from the original list.

How many curriculums now listed in our catalogs are merely copies or adaptations of traditional patterns? How much critical analysis has gone into course content? Are the subjects exactly what are needed for the job? Have we in the terminal subjects spent one-half the time and effort which have been devoted to Freshman English? The answer is an obvious one. The result in many cases has been that unrealistic requirements have priced a curriculum out of reach of the terminal student.

The medically-related occupations are already receiving much attention. Requests have been made to foundations for support in determining occupational opportunities and needs for various dental auxiliary activities such as hygienist, technician and assistant. Technicians are possible in almost every aspect of the medical profession from x-ray to medical secretaries and librarians to the making of dentures or lenses.

So indoctrinated in tradition have we become that in the area of business education, which has remained relatively unchanged since I first started teaching over 25 years ago, attempts by the Curriculum Commission of the A.A.J.C. and two regional meetings have been entirely unproductive in indicating the direction of updating business education.

The Curriculum Commission of the A.A.J.C., composed of administrators, may be forgiven for their lack of insight into this problem but are to be commended for their concern about a static curriculum in a changing business world. At a recent meeting of 28 business instructors from various two-year colleges, the only suggestion for modernizing business education was the adding of courses related to data processing and computers.

Ignored almost completely in terminal education is the fact that girls for the most part will be engaged in the vocation of making a home and raising a family. With the disintegration of family life as it was on the farm, a new approach to the role of the woman in the home cannot be satisfied through a two or three semester-hour course entitled "Marriage and the Family."

The various curriculums mentioned so far are only indicative of what the junior college must analyze and evaluate. The responsibility and initiative must come from our own campuses. Courses and curriculums must be so constructed that the content will realistically meet the requirements of each terminal objective. The consultants for analysis may include the manager and the personnel officer, but the requirements of the job itself should set the pattern. Men on the job can be the best sources of advice; the educator provides the professional mode of study, analysis and conclusion.

At the same time it would be presumptuous of the educator to think that his knowledge of the world of work was all-inclusive. The junior college must be willing to accept new ideas and be willing to experiment. A couple of years ago the New York State Library Association saw the need for library technicians. Students with appropriate training could

relieve the librarian of certain chores of a specialized nature; the librarian could then devote full time to the responsibilities for which she was trained. The program died last fall. State officials and the civil service rejected the entire project. An article in the October 1962 Library Journal (the State publication considered it too hot to handle) was entitled "The End of an Experiment." I never knew so many librarians read all the articles in the national Journal! Professionally-minded people in the field still see the need for such technicians; furthermore, a couple of states which had not considered the program have requested all possible material. Possibly the experiment was not a failure.

Only a year ago at this time, the State Commissioner of Correction, accompanied by the Warden of one of our larger penal-correctional institutions, arrived on campus with a plan for upgrading their personnel. These two men had heard we were willing to try new things and no college had been receptive to their suggestions. The program started in the fall with 125 enrolled. The curriculum was the result of their suggestions and our organizing into subject matter areas. Seven more colleges in the state are now listing the same curriculum for next fall and one four-year college has changed its program to correspond to ours. The Department of Correction pays one-half the tuition fees. The Department of Welfare saw where their own people could benefit. A few additional courses were substituted for highly specialized correction subjects. This department is also paying one-half the tuition. The State Civil Service has created a new position requiring two years of specialized post-secondary education. A neighboring state requested permission to send some students to our program.

The point of these two examples is not to brag about "how we do it"; rather, the purpose is to show how interest on the part of professional groups, state agencies and certainly business and industry can lead to entirely new curriculum areas. It is to be hoped that some high school graduates or untrained adults or adults unhappy in their work now have an opportunity for employment which is more interesting, more challenging and more remunerative.

Excellence in the specialized areas of occupational preparation follows no traditional pattern. The junior colleges must assume the initiative to update and identify the specific needs of each occupation that falls within the pattern of the two-year college. There is, furthermore, the responsibility to be receptive to new curriculums and to be willing to experiment. The final objective in any case is to provide the best preparation possible for each student whether his occupational choice actually requires calculus or just simple skills. The student must be better prepared as the result of additional training to be better equipped to do a specific job than he would be without additional education. A rather obvious statement; yet we are frequently guilty of ignoring the obvious for the sake of acquiring status, a status which seems to be identified with the first two years of the most selective four-year college or university in that section of the country.

Excellence in terminal education is more than an adequate preparation in the knowledge and skills required for a specific occupation. The process of earning a living has little meaning unless there is also an appreciation of living. An understanding of man's role in today's world, skill in the mechanics of communications, an awareness of the principles

of science, the psychology of man and his relationships, an introduction to the creative arts, some or all of these areas of knowledge are vital to man's participation in living.

I should like to refer to this segment of terminal education as general education. The need for an introduction to the basic areas of our culture has long been recognized, and the terminology to describe it has changed with the times. The status of the term Liberal Arts is now in vogue, reflecting the middle-age philosophy of those who determine policy. Of course, if we went back in history a little further, we should find that Liberal Arts were considered vocational and that respectable subjects like science, psychology and economics have been considered acceptable in this august body of knowledge only recently. Conant's General Education unfortunately enjoyed a relatively short life. Terminology more closely associated with "Liberal Arts," like "Liberalizing Arts" or "General Arts" or "Liberal Education," has been bandied around. If the goal is that of general education--and I personally favor the term, we should again study the needs of these future citizens and attempt to construct programs which will provide the basis for realizing a meaningful life beyond the training and education necessary for earning a livelihood. Once again, a review of the curriculums in terminal education shows a completely unrealistic approach to this problem. We find that the usual transfer courses are required, conveniently forgetting that such courses are designed primarily as prerequisite knowledge for advanced work at the university. We find, also, that the amount of general education varies greatly from 50% to a minimum of one semester of the standard first semester of the usual freshman English course plus 3 or 6 semester hours in local and national government, depending

upon state requirements. Occasionally, a sortie has been made, recognizing the needs of terminal students through the introduction of a course called Human Relations, with the first chapter devoted to a study of the nervous system; or a course in Community Problems, taught by a sociologist who is attempting to cram his graduate knowledge into one semester. With only one exception I have found no recognition of the desirability of introducing our students to any appreciation of the various art fields, primarily music, graphic arts, literature.

I seriously question the use of transfer courses as a substitute for general education. Creative writing, a study of the classics, the phrasing of a poem, have long been proven as effective ways of discouraging adult interest in these disciplines, with naturally a few exceptions, namely those students whose burning desire is in this particular field. I seriously question how effective in developing citizenship is the standard course in local and national government or the course in community problems. I further question whether the traditional approach to the theory of economics, sociology and psychology is an effective means for creating an interest in and understanding of these practical subjects. An awareness of the laws and principles of physical science is certainly desirable in our science-dominated educational systems, but I seriously question whether or not a semester of college chemistry is the proper introduction to an appreciation of what should be common knowledge in astronomy, physics, chemistry, mathematics, geology, biology, human anatomy, zoology, meterology, or atomic science.

If we are to achieve excellence in terminal education, we must evaluate the accomplishments of the secondary school and the education

of its students, and we must further identify specifically the attainable goals of our two-year colleges, attainable in terms of the abilities of students and the requirements for constructive citizenship, effective family life, human relations, appreciation of the role of science, and the means for satisfactorily fulfilling what has been erroneously called "increased leisure time." In terms of our present culture, the shorter work week must be considered forced idleness. We have been so indoctrinated with the concept of "The Dignity of Work" that we have forgotten how much human, physical labor was necessary for survival. Science is rapidly releasing man from the need of long and arduous hours of work. The average work-week has been appreciably shortened in our own lifetime. There is every indication that the rate of decrease will accelerate rather than stabilize. General Education is not a luxury but a basic requirement if our students are to be prepared for today's world, let alone tomorrow's. Such a program of General Education, keeping in mind the role such knowledge will play, would constitute a far better education for all post-high school adults whether in a terminal course or a transfer course. Our junior colleges, liberal arts colleges and universities are all ignoring this purpose of an education. In the area of terminal education, we have an unusual opportunity to create such a program. We are not bound by tradition or by what is being done on another campus. Specific prerequisites for advanced courses are not a factor. Let us not ignore the challenge. We should be performing a greater service to our students if we could realistically prepare them for what will be more vital than their "life's work."

I am sure that other speakers this week will cover many areas in achieving excellence in terminal education, but I should be remiss in this introduction if I did not at least briefly mention two other factors: (1) In view of the fluctuating interests and developing abilities of our students, guidance plays a vital role. Although students frequently feel they know all the answers, when usually they don't even know the questions, they need much assistance in making decisions which are based on innumerable and complex factors. (2) Basic to all education is the need on the part of the teacher to know how students learn. This, I know, is a very elementary statement. But just as your checkbook doesn't always agree with the bank statement, or just as you made an error in the income tax return--and this is really elementary mathematics--so the teacher in the classroom makes a simple mistake. Sometimes the error is costly and a student's future is lost; there is no checking-over of the figures.

Those of us in junior college work are fortunate. We are in the position of being of real service to students young and old. Our institutions do not suffer in the eyes of the student as being "required" education, nor are we bound by the traditions of the four-year colleges. The excitement of challenge is ours. In terminal education we find the real opportunity to create, improvise and refine. In meeting the needs of our students, we must be satisfied with nothing short of excellence.

* * *

ORGANIZING FOR EXCELLENCE

Edwin H. Miner, President
Voorhees Technical Institute

When a person is a long way from home and at the same time happens to have a long record of experience, there is a strong temptation for him to pontificate and patronize those Indians who seek to become chiefs. I would remind you that I am not so far from home that I have immunity; and as to experience, let us just say that I have survived many years of varied experience in Education and have achieved hopefully some semblance of humility.

If any field of administrative endeavor in education demands more genuine humility than technical education at the junior college level, it probably is technical education at all levels. Nobody has the answer, and if I know Bill Dwyer, he did not attempt to categorize Excellence in Terminal Education in terms of a blue print which can be followed by all to a rosy hued conclusion.

Certainly all of you have studied very carefully the "Characteristics of Excellence in Engineering Technology Education" as published by the American Society for Engineering Education under a 1962 date line. Never was a researcher more humble than Dr. James L. McGraw, the Project Director, when he presented the blue print and recommendations of his working committee last October to the Society in the Philadelphia meeting. Interestingly enough, at that same meeting reports of an interim nature were made by chairmen of groups set up to do a similar or related job in the undergraduate and graduate levels of engineering education. They are moving slower, but of course over the years there have been

many such studies made. I would point out, however, that their earlier recommendations and standards are in drastic need of change and that whatever these study groups may eventually do about new dimensions for engineering education, there will inevitably be whole new demands made upon engineering technician education. And new demands on engineering technician training means a fruit basket upset on lower-level technician training objectives in related areas. Therefore, I say to all of you two-year college administrators, bona fide and potential, you cannot get into the throes of Organizing a Terminal Education Program for Excellence without at least being cognizant of the interrelationship of your program with that of some other collegiate-level activities.

Furthermore, let me remind you that there are strong interrelationships between your programs and existing ones in the secondary schools as well. Some of my friends at the junior college level are far from humble and mild in their expletive reaction to the hard fast entrenchment of vocational education or the smug self-satisfaction of their collegiate brethren who call the shots on professional training.

My friends, we are the interloper. We are hewing out careers for ourselves at the expense of the other two groups--or so they think. If any of you are on the mailing list to get the latest advice on the activities of the American Vocational Association, you know that any bill for congressional consideration which would give federal support to technical education at the two-year college level is labeled undesirable for its potential threat as an invasion of A V A's staked-out claims for vocational education.

If any of you have tried to deal on the upper level with admissions

offices of Engineering Schools to which some of your terminal students have applied for further study, you have perhaps been advised that your candidates are nonacceptable for many reasons--your physics course was not an engineering physics, your social science course was not Western Civilization, your academic standards are not high enough--they would not have accepted the individual in question as a freshman because of a mediocre high school record; or perhaps if you are a freshly minted two-year college, the College Blue Books have not yet included you in their pages.

I repeat we need to be humble but in the face of our interscholastic and intercollegiate relationships, I am not asking or encouraging you to be Uriah Heaps. If vocational educators have the answers to preparation for industrial man power, why would they be so fearful of losing their pump-priming Federal cash. If engineers were not so intent on having the prestige of the label, scientist, in today's professional personnel market, why would so many employers wring their hands over the diminishing force of men and women with technical know-how.

No matter how the educational fraternity feels about their new hybrid institution--the two-year college, this new variety offers a functional answer at an economical price to some of society's needs for more educational facilities.

At this moment we enjoy the favored position in the educational hierarchy. Community College is a magic phrase for securing public acceptance and support. I shall not invade Dr. Philpott's area except to say that in my opinion if we are smart enough to recognize the challenge and the opportunity to provide needed service, humble enough not to try

to outdo our compatriots in education, and sufficiently self-disciplined to keep an open mind and not become slaves to our own developing traditions, there will be no end to public support for peoples' colleges where training doors will be open for students with potential and motivation.

In preparing this presentation I was tempted to review the statistics and supply you with data about the numbers of two-year colleges and the nature of their terminal programs. You are not all from Florida, nor any other single state. Furthermore, the fiscal support and supervisory arrangements for junior colleges vary so widely that I could wind up not getting beyond charts and tables. It seemed to me that I could talk with you about administrative organization in terms of desirables without having to pin point any particular state set up. How do we organize for excellence?

First, we have to do some practical delineations of program.

How is this done?

There may be a State or Regional Master Plan. If so, does the plan go beyond an estimate of the number of educables who may knock on college doors?

Did it perhaps study man-power needs and make estimates of categories of trained personnel who will be sought?

Is there a Council of Community Social Agencies or other body in your locality which has done any studying of the particular characteristics of this smaller area? Has it studied the current employment roll, recent changes, those foreseen, etc.?

Are there marked differences between the opportunities for men and women in employment?

Possibly the public schools in the area have studies of their graduates and what happens to them, their drop outs and their destinations.

And then, of course, you may have a State mandated minimum program. Similar mandates may govern other units of the School System in an effort to avoid overlapping. If not, then regional consultation with local school and college authorities is clearly indicated.

Certainly we could safely say that a basic first step is to pull together all agencies involved in community betterment and seek their help in supplying data, information and recommendations for potential program.

Generally this sort of grass roots community study is done before a local two-year college gets started unless a state plan for state supported junior colleges places institutions at strategic location centers throughout a state. Even then it is hoped that much local planning assistance was sought.

Fully as important to having such initial study and help is a plan for continuous review of community needs and an evaluation of the college's program as it relates to these needs--all of which leads to a second step.

Second, specific advisory committees for special curricula are desirable.

Various authorities will tell you how to set up such committees:

The Administrator appoints.

The Board of Trustees appoints.

Industry and labor appoint.

State agencies may suggest names.

They may also tell you that the duties of the committees will range from policy determination to the mildest of recommendations. Such committees may even recommend facilities and equipment. The important thing is not who names the committee, rather who is named on the committee. Get people who can and will be willing to help.

At this point let us sum up Steps One and Two by saying that the Junior College Administrator who intends to set up terminal programs will do well to get as much intelligent help as possible from local, regional or state sources and establish cooperative arrangements with all educational groups in his area.

<u>However, the Administrator cannot and must not abdicate his own responsibility in the overall determination of curricula, their development, review and elimination.</u>

For example, in this rapidly changing economic picture it is sometimes as important for a curriculum to be dropped as it is for one to be initiated.

<u>Third</u>, identify an attainable set of objectives. There will be no problem getting objectives; the real problem will be that of realistically spelling them out.

The Community College cannot afford to ape or dilute the objectives of four-year colleges. In the final analysis the success of your curricula will be measured by your graduates and what happens to them. I have noted all too often a tendency for junior college administrators to try to match the programs and standards of some four-year college idol. Remember there will be plenty of prestige for your institution and yourself if you all have the integrity to accept your responsibilities as two-year colleges and do the needed job.

The forces at work to make you forget this are multiple:

Fierce local or community pride may try to pit you against the institution of a rival community.

Faculty members who have used the two-year college as a back-door approach to college teaching work devious ways to make the local college more respectable.

The imagined pressure which the college accrediting associations are supposed to exert to make new colleges conform to a "typical pattern" is another force. Any accrediting team that is worth the label will evaluate a college's performance in reference to its stated objectives, not those of some other college.

Accordingly, then state clear and reasonable objectives; strive to attain them; use every effective means possible even though it extends

you and the staff beyond traditional methods and procedures.

Fourth, pick a faculty that can do the needed job. We all know that the ASEE Study cited earlier recommends that half of the full-time technical staff be engineers. Let us not quibble with percentages. Instead, concentrate on finding people who can teach your offerings.

The newer crop of engineers would almost automatically not qualify despite their degrees, because they have had little if any exposure in their training to the know-how of process.

And when you take any retired person off the shelf and ask him to dust off his cobwebs, find out what he has done to keep abreast of changes since his last schooling which well may have been 40 years ago when he took his BS in Engineering.

I say no matter who the man is or where you find him pick him for what he can do for the program, not for the degree he holds. My experience shows that a staff picked on this basis will have a cross section of degrees, age and experience. If you expect to train people for employment immediately after terminal programs, you must have competent people from those areas of work on your staff.

Let me remind you, Mr. Administrator, that a staff of this kind is neither docile, conventional, nor impressed with your own degree. It will take everything you have learned plus to weld this mixture into amalgam. You will need human relations, psychology--pure and applied, foresight, patience, persistence and a thick skin; but if you can bring all their potential forces to bear on the students they have, exactly as they are, your program will make startling achievement.

Now if by some chance your community needs extensive evening offerings, whether repeats of day division or related special short courses,

you will find it necessary to have an additional staff. Members of your day group may desire to augment their salaries, and you will find that they can provide the key to the needed correlation that must prevail between the two divisions.

However, the bulk of your faculty, both in the specialties and the general education, may be part-timers drafted out of every facet of your community life. Some may never have taught before. Their motivation will vary, but basically they can be a limitless spring of good instructional potential. However, to get the best out of an evening faculty is fully as demanding of an administrator as a full-time day staff.

Pick somebody to give supervision to evening instruction as well as direction to the operating details of the program. And while I am on this point, I will tell you that I know of no evening division administrators who are paid by the enrolled heads, but I have known some whose zeal might make you think so.

Fifth, this area deals with efficiency of instruction. I will not take you into the details. Certainly, if you round up a competent faculty, you have every reason to expect that you can have a top-flight instruction program. However, if, as an administrator, you are organizing for efficiency, you cannot delegate this responsibility and then forget it. You will push your Dean, if he doesn't push you, into a study and analysis of all new methods, procedures and devices. You will also consistently resist the endless stream of pressure put on you to raise academic standards to keep increasing numbers of students not only manageable but also educable according to your faculty's standards. If the job requirements really demand calculus, up-grading may be indicated; but to add genetics may really provide little real value for the students

while satisfying the ego of your biologist.

Proliferation of courses is the bane of all administrators. To help you cope with this problem, set up frequent round tables between faculty members and people from business and industry.

Be prepared for pressure from industry for you to adopt all the new technological devices; programmed instruction, teaching machines, data processing, systems analysis, etc. Work with business on these things. They have money for research. Try them yourselves; test them out and accept them when worthwhile. You probably have already concluded that the vital ingredient in successful programmed instruction is the carefully organized teaching plan of a truly master teacher. <u>This brings us back again to the need for constant improvement of instruction through effective supervision</u>.

While considering improvement of instruction, let us not overlook the place of the library in our programs. You read the AAJC Journal. You know that a number of our new institutions have been planned around the library as the focal point. And I don't just mean they have placed the library in the center of the campus. They have accepted a concept that the library is the key to carefully planned and implemented instruction with books, records, tapes, T. V., audio-visual devices, language laboratories, auto-tutoring spaces, research facilities and microfilms as integral parts of the learning process. A premium is put on individual learning, broadening horizons and intimate participation.

You may not be able to afford these marvelous study centers, but you can build good reference and reading collections. <u>You</u> will not pick the materials--neither will the librarians, but a real functioning faculty

library committee can put vitality into the library's content.

Sixth, an area in which the administrator is basically the key man for securing efficiency is that of overall operation of the college.

Are you set up in College X for good functional operation? Plenty has been written and said about organizational patterns; and you can get charts to set you up by line, staff or function. Which is best? There are too many variables to warrant generalization. If your college is in a state where little is left to chance or local discretion, you may have a ready-made plan like some students with little or no electives.

If, however, you do have discretion, I would strongly recommend that you pick key staff to head major functions and branch out and fill in from there. The exponents of democratic administration will tell you that it takes more time and patience but the end results are better if organization is developed with the help of all concerned. I never cease to be amazed at the frequency with which such faculty exponents rule the students out of democratic participation.

Again, from experience, and I will confess that my earlier associates would find my progression from conservatism to liberalism almost unbelievable, I would remind you that nobody has found a successful method for changing governmental structure from dictatorship to democracy overnight. We have limitless examples today to prove that democracy as a form of government can succeed and last only when people understand how it functions, accept the individual responsibilities it places on them as citizens and work constantly to make it in turn work.

To decree democratic college organization is not enough. I have not found that teachers generally are willing to take the time from their

main love to work at administrative problems which they expect to have solved by the man who is paid to do that job.

Have think sessions, brain-storming, workshops or whatever group arrangement you desire. Get ideas, pool ideas, discuss problems, work toward solutions, listen to suggestions, but at some point take a directional lead and take a stand. If things don't work out, others will tell you if you are too slow or proud to realize it yourself.

If, as an administrator, you are ever conscious of the objectives of your program, your responsibilities to your sponsors, your relations with your co-workers and your obligations to the students, your operating program will reflect your efforts. They will identify you as a good administrator or a poor one.

I am not going to discuss budgeting, financing growth and new developments, or fiscal support from your patrons except to say that many of the recommended procedures for administrative efficiency are equally applicable here. You will need competent help in fiscal and business matters as well as public relations. When you first jump into an administrative role, you may have to wear all the hats and even later with help you can never ever throw them away. Keep them in your closet to remind you instead that they still constitute part of the uniform of your office. Your budget and finance officer may actually prepare the budget, but it is <u>you</u> who will have to defend it before the county board of supervisors.

<u>Seventh</u>, how and where will you get your students? If you have not been following the national news, you may not realize that two-year colleges do not have as many terminal candidates as they would like to

have--or as many as they are equipped to train. There are exceptions to this statement in certain regions and in some categories of terminal programs, but unfortunately the generalization is all too true for technical or engineering technologies.

I have found it extremely difficult to convince some responsible individuals that this can be a true situation when the clamor for such trained technicians is so real and insistent.

There are a number of reasons for the dilemma. Basically, we ourselves are at fault for not having found a better generic classification for our curricula than Terminal. Most people think of a terminal as the end of a line. They forget it also means a place from which to take off.

Therefore, number one, get busy accenting the start not the finish--and the truth is that in this crazy scramble for progress the terminal technician is in a much better take-off position than many of his peers. His training almost always leads him into new fields and more training. Much of this rationale is equally applicable to nontechnological terminal programs.

Number two, let us find some worthwhile values for hands other than driving a car, twisting TV dials or holding other hands. Help to prove the fact that hands without heads are less important for employment than when working together. A renewed prestige is needed for Know-How, especially when coupled with Know-Why. This means reading parents and guidance counselors and youth directly. Your own part-time Evening Division faculty from Business, Commerce and Industry can become Public Relations men in their own right. Enlist them.

Number three, put your advisory committees, who know better than

anybody else what the job opportunities are, to work campaigning for candidates for your terminal programs.

Number four, use your own counseling efforts to effect wise program shifts of individual students who appear to be misplaced after a term or two.

Number five, elevate the prestige of the terminal programs in your own institution. You will not have to shoot all of your faculty to effect a change, but it will be difficult in some locations where college, even two-year college, can properly mean anything else but liberal arts work toward baccalaureate transfer. This may call for complete changes in thinking about how to schedule classes. Try scrambling. Perhaps what I am asking for is an all-out effort to stop discrimination against terminal students.

Number six, really organize your college's efforts at intelligent placement. In the long run good placement of candidates will build prestige. This function cannot be left to chance. Departmental placing is good if all departments are equally active. Centralized service can bog down if the office is removed so far from training that the personnel do not know either the candidates or exactly what they can do. I would recommend that departments be involved in some measure at least in the Placement Service.

And, number seven, use nonconventional team arrangement if efficiency will be helped.

Conclusion

It is always a temptation to pack a whole course in one shot if that is the only chance you have to talk. You know what happens to the one-drink

man who makes it a triple brandy.

I hope I have teased, prodded or otherwise disturbed some of you to a point where you'll take issue or push matters further.

It has been my privilege to serve as a member of the Education Committee of the Public Education Association of New York City. This is a voluntary organization which is concerned with trying to help improve the school program in the City. It is not an anti group or one pushing the vested interests of its members. We have been concerned with the alrming fact that for every 50,000 graduates of high school each year there are another 20,000 dropouts during each year. About half of the enrolled students are in general and vocational schools. The dropout rate is larger here than in academic schools.

You know what the secondary school dropout rates are in your area. You also know the dropout rates in conventional baccalaureate programs. You know that the mortality is heavy in transfer programs in two-year colleges. You also know we have too many in our own terminal programs.

What does all this mean to you in the face of an insistent demand from industry for more well-trained technicians?

I say it means we not only have to improve the efficiency in our own programs but be prepared to take on thousands of students who mistakenly are now winding up disastrously in the wrong curriculum. This is our challenge.

EXCELLENCE IN ACTION - NATIONAL LEVEL

Kenneth A. Brunner, Specialist
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All of us here, I'm sure, are dedicated to a common objective to help our region, our state, and our nation to attain a new level of quality in its pool of education manpower - a higher and unrelenting quality at the same time that we are faced with a question of quantity. Across the nation more than 1,000,000 freshmen will soon begin congregating and soon we will read this year, as we did last, and as we have in all recent years, that approximately one fourth of this million will have begun their college education in a junior college. In one state we will hear that approximately 70 per cent of the beginning college students began their education at the junior college level - this is California. What you probably don't know is that in another state none will begin their college education in a junior college - Nevada has no junior colleges. The latest published data enrollment figures which I have seen for states in the southeastern region - 1961 data - used 14 states and the District of Columbia. It showed that approximately one in five students began their higher education in a junior college. This is somewhat below the average of the nation as a whole. The range is from an average of one in a thousand in Louisiana to almost one of every two in Mississippi. Florida and Texas are the only other southern states in which junior colleges enroll larger percentages of beginning students than the nation as a whole. Georgia is very close.

If the data which you read this year are anything like those of last year or the year immediately preceeding it, they will pertain to

the kind of beginning college students that most people understand - those enrolled in programs which will lead to a bachelor's degree, either directly, or, in the case of a junior college student, through transfer to a degree granting institution. Not included in these statistics are the students enrolled in vocational or terminal programs - the kind of programs that this institute is concerning itself about. Statistics indicate that junior colleges will continue to emphasize the transfer function. There should be something new in the way of statistics this year, providing all of you cooperate. Data on our fall opening enrollments will cover not just students enrolled in a bachelor's program but also other students - and there is no clear designation as to what these students will be called. The word "terminal" is used but it is not a completely acceptable word. It is recognizable and usable but confusing. I have worked for several years with a committee called the Terminal Education Committee of the National University Extension Association, and each year there has been confusion about this title "Terminal" education in an association devoted to continuing education.

I think the college parallel programs will continue to be emphasized. Some junior colleges do nothing but college parallel work. Many of them intend to remain in this kind of education and this kind only.

Just as we know that it is dangerous to generalize too much about students - about human beings - it is also dangerous to generalize too much about junior colleges. There is really no such thing as a typical junior college any more than there is a typical human being. It is important for all of us to not only recognize this fact, but to reinforce the recognition over and over again. Let me illustrate this with information about Florida junior colleges, using data supplied by the

Community Junior College Division of the State Department of Education. I'm sure many of you have seen this information - some of you have participated in its collection. In the Fall of 1962, which is the period covered by these figures, Florida junior college enrollments in adult and vocational programs totaled 9,000. Perhaps these are the areas closest to what we are concerned about at this institute, the terminal programs, although not all adult programs would be terminal by any means - some are better compared to continuing education. About 31,000 were enrolled in junior colleges in Florida, and it may be said that almost one fourth of the students were enrolled in adult and vocational programs. This is true generally in the United States - these are reasonable statistics. But we have not been given enough information yet to generalize about a typical Florida junior college. For example, nine of Florida's twenty-nine public junior colleges report only college parallel enrollments with no adult or vocational studies. Of the twenty schools who have adult and/or vocational school enrollments, such enrollments range from one per cent of the total enrollment in one junior college to approximately eighty-seven per cent of the total enrollment in another junior college. Do you care to guess the identification of the two junior colleges? One per cent is the Junior College of Broward County and the eighty-seven per cent is Volusia County Junior College. These are basic facts to concern yourself about as you work at your terminal programs, as you look at the problems of terminal education, as you measure the question of whether or not you can provide excellence in terminal education at the junior colleges. I made notes as I visited some of the group sessions yesterday. One of the problems that seems to have come up over

and over again is "What is Vocational Education"? "What is Technical Education"? I think it would have been very nice if we had been supplied with some of these definitions before we came to the meetings so we could all have kicked off on a common ground. There seemed to have been a question yesterday during one of the sessions as to whether junior colleges should concern themselves with vocational education. Some thought they should; some said they shouldn't. But during the discussions it was found that each had different ideas about what was meant by vocational and technical education. Technical education seemed to rate somewhat higher than vocational education - this seemed to be a general agreement.

In a publication referred to earlier, "Characteristics of Excellence in Secondary and Technical Education", the writers concern themselves with technicians. There are technicians who work closely with engineers and other professionals and there are others recognized as industrial or highly skilled technicians. We are concerned with this too in Washington. In the original bill composed in response to the call issued by President Kennedy last February in his special message on education, a provision is included for, as they put it, college level technical education; engineering and other semi-professional technicians are included in the Higher Education Title II section. In another section, they recognize that technicians can be trained at two levels. The House Committee on Education and Labor pointed out, among other things, that approximately 22 per cent of the total bill - $50,600,000 would be provided for junior college and technical institute facilities in the states. This reflects the sentiment of the country, most especially the sentiment of the House Education and Labor Committee. They left it to the states to shuffle the money around any way they want. They particularly recognized the

role of the junior colleges in vocationally supported technical education programs.

For the past five years, we have been studying curriculums in higher education. Among the interesting facts which we have noted is that in 1960 for the third consecutive year, the engineering-technical curriculum enrolled a decreasingly smaller proportion of students. This is not what is happening in many of the southern states but it has been true generally throughout the United States. At a time when we are calling for more engineering technicians, at a time when the president has recognized the need, at a time when the Office of Science and Technology is engaged in a major manpower study, the enrollments are decreasing in this area. The top area in terminal occupational education programs is business and commerce; they enroll approximately one third of the students. The next most popular curriculums are education, health services, mechanical technology. In the United States at the present time there is greater need for sub-professional personnel than for professional personnel. The Department of Labor has estimated these needs to be in the vicinity of 78,000 a year. Most of these needs will be met by some kind of an education training which will require the younger age group to either stay in school longer or to continue their schooling on a part-time basis after they have entered the work force. From the study of efforts made by the United States institutions of higher education and the two-year colleges to meet the need for technicians and semi-professional personnel, several tentative conclusions are possible. First, it appears that the higher education institution can be expected to provide at least one fourth, perhaps as much as one third, of the personnel needed in this area,

that is, some education beyond the high school but less than a bachelor's degree. Second, the logical institutions for such programs are the community junior colleges. Apparently, the two-year institution, more than the four-year institution, is able to attract students to such programs and involve them for the two years usually needed to complete such programs. Besides the status factor of the bachelor's degree is not as large a problem in an institution which does not award such a degree. However, even though such institutions are assuming much more responsibility for this level of education than they have in recent years and at a much more rapid rate, the largest proportion of the need for such sub-professional, semi-professional, technicians--call it what you will--training for such personnel will have to be satisfied by some other means. Some of the institutions, although they may not be flexible enough to prepare much of the necessary manpower, can be counted on for contributions. Also included, as pointed out by Mr. Emerson in his study, are the Armed Forces, and technical and vocational schools operated by profit making organizations.

In some of the groups yesterday, the utilization of the drop-outs from the science and engineering programs of four-year institutions was offered as a means of organizing for excellence. As some of the junior college people pointed out, various private enterprise is perfectly willing to take anyone with two years of college credits and train them to meet their specifications, so the question was raised, "Why bother to organize any kind of a technical-terminal program in this area? Well, there will be drop-outs along the way who will fit into some program, but, really, could you call this "Excellence in Terminal Education Programs"? In Vocational Education Programs?

Public vocational-technical programs have been given great stimulus by the passage of the National Defense Act in 1958. When the bill was drafted supporting this kind of education, it reflected grass-root thinking more than anything else. It has provided funds to train highly skilled technicians in certain occupational areas. Undoubtedly these programs will continue to turn out numbers of highly skilled technicians. There is not enough evidence yet to arrive at any but the most tentative conclusions about these programs but they appear to be doing an adequate job. The surprising thing is the number of persons in these programs - in terminal programs - who are continuing their educations, but who are not, in fact entering the employment area as was intended. If you favor this kind of legislation or if many of you don't, you are aware that you have representatives in Congress who will be pleased to get your reactions, particularly those of you who are directly concerned with this kind of education.

Employer on-the-job and in-plant training, hinted at briefly, are responses to particular needs of industry and not only may expand but may have to be greatly expanded to provide for area needs. It is clear that an extra effort is needed in the United States--in this region, and in the individual states--if the technical and semi-professional manpower levels are to be raised. It can best be done through the cooperative efforts of many segments of our society: government--national, state, and local; education--university, junior college, vocation-technical institutes; as well as business and industry.

The real key to whether you are doing an excellent job, whether you are meeting the needs of your community, is to know what is going on in your community. Do you know what is happening to the graduates of your

program? How well have you followed them up? I am sure that almost every school here can give you a very accurate record on the number who transfer to four-year colleges and universities and how well they perform in these institutions. This is fairly easy to measure, but what is more difficult to measure is the success of your terminal programs. Do you know what per cent of your students are working in the kinds of jobs or general job areas in which you trained them? Do you know what per cent of your part time students are working in the same area in which they were accepted as students? Do you know what per cent of part-time or full-time students are financed by their employer? Do they happen to be taking courses that are related to the job? These are some of the kinds of questions that I think you should be asking before you determine whether you have excellence in your terminal programs.

EXCELLENCE IN ACTION - STATE LEVEL

Dr. Thomas Strickland
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Excellence in Action - this is an interesting title. It implies comparison. More than that, it implies improvement. But to compare, it is necessary to have something with which to compare. To improve, it is necessary to have something over which to improve. And to compare and improve requires a set of conditions in terms of which comparison and improvement may be measured.

Let us for example, use an historical analogy. Let me hasten to add that I am not using history as a measure of progress. There are too many of you who could quickly point out that is some instances history appears to be a melancholy record of retrogression. On the other hand, there are peaks of shining achievement. Therefore, let us merely search relatively recent history for examples of changes which may or may not represent progress, depending upon your point of view. For example, a century and a quarter ago it took approximately five months for a wagon train to cross the Great Plains and the Rockies from St. Joseph, Missouri, to California. Moreover, this does not include the time required for the train to assemble, equip, and organize.

Ten years later the pony express covered the same distance in approximately 10 days. Nine years later still the Golden Spike was driven at Promotory Point, Utah, connecting the Pacific Coast with the East and Middle West by rail. It cut the travel time required to eight days.

The turn of this century saw greater democratization of travel with the introduction of the automobile. This did not cut travel time, but it caused more people to travel. Indeed, it caused so many people to travel that the technology of highway construction has not even today caught up with the speed and numbers on the road. By 1923, however, aircraft flew over rutted roads, narrow streets, crowded cities, and between rocky peaks cutting the time still further to 27 hours. And this, it should be remembered, was from New York to Los Angeles instead of half the width of the Continent. Today it is possible to cover the same route in 5 hours. Tomorrow it is estimated that the time will be 2½ hours. In several tomorrows we may leave the continent or the globe entirely in favor of the vaster regions of interstellar space where conventional modes of communication will be replaced by devices such as lasers. Some implications of the latter are readily discernible, but their full implications and further break-through to which they will give rise cannot yet be imagined.

This panel is concerned with excellence in technical education. Each of the innovations previously identified represents a particular stage of technological development. Had it been possible to assemble this group a century and a quarter ago, it probably would have been concerned with the technology of mending broken wagon wheels, with elementary celestial navigation, with making hardtack palatable, and with making a wet, bent, or muddy firearm serviceable as quickly as possible.

Moreover, the group might very well have been interested in practical demonstrations of the skills required instead of discussing them. I suppose that we might conclude that a reasonable level of excellence

must have been attained because the problem has been solved or outgrown to the extent, at any rate, that emphasis has been shifted.

A half century ago this group might have been concerned with instruction designed to make that infernal contraption, the early automobile, perform reasonable effectively. Again, presumably this goal was accomplished. Today our concern is still with excellence, but with excellence under vastly more complex conditions.

What I am saying is that excellence is a relative term and the degree to which its attainment can be measured depends upon the circumstances which determine the goal to be attained. For example, many of the factors which plagued the argonauts of a century and a quarter ago are still with today's astronauts. Unfavorable conditions of temperature and humidity - heat, rain, and mud a century ago, today measured in terms of minute quantities are as much a problem now as in an earlier day. Intractable materials, mechanical failure, the unexpected are just as frustrating and nerve wrecking as ever. What has changed, however, are the conditions under which these occur. Any degree of mastery must be measured against these different circustances and newer points of view.

Principles of Excellence. We have mentioned the relativity of excellence - the fact that it is not a certain quality or something that can be drawn out of thin air and stretched out as an invariable straight-edge against which performance can be measured. Instead, it is a function of the conditions and circumstances in which assessment occurs.

An earlier speaker of Monday defined excellence while yesterday you were told how to organize to achieve it. It was impossible for me to be present for these excellent comments, but more than likely certain principles were identified. If the following principles of excellence

duplicate comments made by the earlier speakers, please consider them as complementing each other. An excellent outcome I might add parenthetically. If they have not been introduced, I shall throw them into the hopper for whatever consideration they merit.

Three conditions aside from relativity seem to be necessary for excellence. There are (1) freedom of choice, (2) objective evidence, and (3) paradoxically, recognition of the subjectivity of the assessment of that quality.

Each of you will wish to make your analysis of excellence in your own terms. I, however, shall confine myself to these three. The first is freedom of choice. In a problem situation there are probably three alternative choices to be made or actions which may be taken with regard to tentative solutions. One is to assess the adequacy of response in terms of the "neatness of fit" considered desirable. By this I mean the care, accuracy, discrimination, or refinement required by the conditions of the problem. If only a coarse response or sweeping generalization satisfy the circumstances, little is to be gained by a painstaking concentration upon inconsequential details. If, on the other hand, sophisticated interpretation or carefully planned procedures are required, generalities will hardly suffice. Two is to defer judgment until additional evidence is accumulated. Three is to reject the response because it is obviously in error. Although rejecting may be difficult it may, nevertheless, be the most important of all the conditions for it implies positive action and implies freedom to experiment. Only as conditions exist which permit the luxury of error can progress occur. If experimentation is stifled because of the fear of making mistakes, the very

foundation for the development of excellence is removed, an ever present danger when any social and technological activity, including education, becomes institutionalized. If there is no freedom to choose and to make intelligent errors based upon carefully calculated consideration of conditions, progress can occur only under conditions of omnipotence - a condition which hardly obtains with our fallible intellects.

We have said that where possible assessment of excellence should be based upon objective evidence. But here again one must be careful not to aspire to a level of objectivity which is not required by the situation or which is not inherent in the factors influencing the situation. Nor should one be misled by spurious objectivity - the appearance of rigorous analytical treatment and interpretation of data or findings which are essentially subjective in character - at any rate at the current level of sophistication of some evaluative instruments.

In many areas of education, including technical education, only subjective assessments are currently possible. Under present conditions, these of course are and must be used but with the hope that judgmental decisions will reflect as much as possible objective evidence which can be obtained.

We have just about come full circle. We have seen that excellence is relative to the performance required, that it should be measured as objectively as possible, but that the objectivity, in turn, reflects the quality of conditions influencing the situation.

With these conditions in mind and with no intent to assess its excellence, let's look briefly at the Florida program of technical education.

Program Organization. It should be noted that the office of technical

education is relatively new to the State Department of Education. In recognition of the importance which training for technical occupations had assumed for the economic and industrial welfare of the state, a Consultant for Technical Education was appointed in 1958. Until recently, technical education was a part of the Industrial Education Section of the Division of Vocational, Technical, and Adult Education and was supervised by a Consultant for Technical Education. Beginning July 1, 1963, however, it was established as a separate section within the Division to be administered by an Assistant Director for Technical Education supported by a full-time specialist. This separation of the two services is consistent with the national pattern and emerging importance of technical education in Florida.

Any educational program is a joint enterprise and this seems particularly true for technical education. Accordingly, the role of the technical education section can best be seen in light of the state-wide program which it serves.

Currently, technical education, supported by local, state, and federal funds, is concentrated in twenty counties in five areas of the state. These include the lower southeast coast counties, the middle east coast counties, the central gulf counties, the northwestern counties, and a cluster of counties in the north central and northeastern part of the state. Combined, their facilities make technical education available to well over eighty per cent of the state's population.

Twenty-five school centers, serving both single and multi-county areas provided fifty-three technical curricula during the past year. Three types of institutions provided technical preparatory and extension

classes. There are comprehensive high schools which include technical subjects for high school youth in the eleventh and twelfth grades, community junior colleges having technical divisions which offer from one to six technical courses, and vocational industrial-technical centers where preparatory and short courses in several technical fields are provided.

Technologies Studied. In both extension and preparatory programs greatest interest was shown in electronics. The most popular preparatory areas are mechanical design technology and electronic technology, while mechanical production technology was the second preference of experienced technicians. Certain other technologies enrolling smaller numbers of students in which demand is almost certain to grow are electronic data processing, aeronautics, instrumentation, civil and construction technology, and medical and chemical technology.

The process of "tooling up" for a new program, for the most part, has been completed. Numerous training facilities are now in existence and the program is in operation. Hence it is anticipated that program emphasis will increasingly shift from organization and development to that of refinement and extension of the program to meet evolving demands.

Following are representative activities which the State Department of Education is doing or will initiate in carrying out its responsibilities.

Research and Surveys. A program of education must be carefully planned and developed in light of objective evidence if costly mistakes are to be avoided. Accordingly, to establish the technician training programs needed in Florida a survey was conducted to determine trends in the need for technicians and to assess potential demand in the years

ahead as nearly as such demand could be anticipated by employers. A more intensive study is now planned to determine current need for technicians and some of the competencies which employers expect technicians to possess. It is anticipated that the findings will be of value in assessing the adequacy of current offerings and will help to suggest direction for further program development. In addition to conducting state-wide surveys, county school authorities have been assisted in identifying specialized technician training needs having implications for the establishment of new technical curricula.

A study is currently in progress to determine the current status of high school technical programs in the state. Among the areas being explored are (1) student guidance, (2) teacher experience and professional qualifications, (3) planning and instruction, (4) adequacy of facilities and equipment, and (5) placement and follow-up. It is anticipated that the results of this effort will yield information which will be useful in assessing future developments in the program.

Teacher Education. Finding qualified instructional personnel for technical education programs has been a persistent problem. Frequently, the schools have had to draw from industry technicians and engineers who possessed the necessary technical background, but they lacked the required experience in education. Consequently, it frequently has been necessary to employ teachers holding temporary or provisional teaching certificates. To assist teachers in meeting certification requirements, the State Department of Education has worked closely with The Florida State University and The Florida Institute for Continuing University Studies in providing teacher education courses each summer for technical instructors. This arrangement, however, has provided only minimum opportunity for teachers

to remove certification deficiencies and to work toward advanced degrees. With a view of increasing opportunity for study a teacher educator responsible for developing an in-service teacher education program will be appointed during the coming year.

In some instances, instructional personnel with adequate technical backgrounds have not been available for certain of the technologies. In such cases, it becomes necessary to prepare teachers in other areas of education to teach in a new field. Electronic data processing is a case in point. Currently in process at Miami-Dade Junior College is an eight-week summer institute sponsored by the U. S. Office of Education to alleviate the shortage of data processing teachers.

Educational Materials. In the area of curriculum development, a study to determine appropriate instructional content to be included in post high school electronic programs has been completed. Assisting in the project was an advisory committee consisting of technicians and engineers from electronic industries and electronic instructors representing high schools and junior colleges. The report was distributed to personnel concerned with the preparation of electronic technicians.

A similar study to be concerned with content and method of instruction in drafting and design is planned for the coming year.

Improved instructional content and procedures which are developed in local school centers have implications for the state-wide program. Accordingly, arrangements are being made for the collection and distribution of these materials to all instructional personnel.

Program Leadership. Effective leadership is essential if technical education is to serve adequately the purpose for which it exists. Moreover, that leadership must be broadly based permitting it to shift from time to time to the individual who may possess the particular specialization, insight and understanding required by the circumstances. To encourage leadership development, the State Department of Education sponsors two conferences each year. These serve the two-fold purpose of utilizing existing leadership in the conduct of meetings and encourage the development of potential leadership among its members.

Program Evaluation. Implicit in much that has been said is a recognition of the need for continuing evaluation. It is to be hoped that studies which are either in progress or soon to be initiated will yield a basis for assessing current program effectiveness and determining direction for further program development.

In closing permit me to re-emphasize that no attempt has been made to think in terms of excellence. Rather representative activities of a program, planned to meet present needs, have been discussed with a recognition that conditions are changing. While it is to be hoped that the program will measure up to the task before us, any measure of relative quality will have to merit future assessment.

EXCELLENCE IN ACTION - LOCAL LEVEL

W. Robert Halstead, Director
Gaston Technical Institute

I have waited with a great deal of anticipation to hear what I had to say. There were some remarks prepared in advance at Ray's request, but after the pre-eminent pre-emption by Dr. Dwyer on Monday and by Dr. Miner on yesterday morning, my original purpose could best be accomplished by replaying a tape of Dr. Miner's masterful and thorough presentation with my part limited to the interspersion of a few interjectory "Amens". As novel and effective as this might be, I have chosen instead to take the view that if there is a contribution that I can make to you through this conference, it is in the frank discussion of some of the elements of the problem at the immediate operations level and in the frank presentation of our views toward a solution of these elements of the problem without undue harassment at the educational philosophy level.

These views are the result of a number of years experience on the firing line of technical-terminal education; in student recruitment, in classroom instruction, in course and curriculum development, in faculty recruitment and development, in development of student personnel services including placement of graduates, and in direct administrative responsibility. But this intimate contact with the problem has bred a humility which I am told is not apparent. I am quite sure that I can top any objection or reservation that you may have concerning terminal education. I can "prove" to you in one breath that it is an educational atrocity and an affront to the profession, but in the next breath I believe I can prove to at least some of you that the inadequate quantity and quality of this type of education is a deficiency which should not and must not

be tolerated, and is the result of professional negligence if not incompetence.

We will always have with us some people who are capable of riding in air-conditioned Cadillacs, of enjoying color television, of being enraptured by a Telestar transmission from Europe, of journeying by jet liner to the far corners of the globe, and of living under the protection of rockets and H-bombs, who are destructively critical and sincerely opposed to any educational process that is not centered around life adjustment and the understanding of who we are and why we are here. It is a waste of time to discuss terminal or even technical education with such as these.

In connection with the establishment of the institution with which I am associated, the initial support was weak and the policy directive was hazy. Few of those involved had the foggiest notion of just what it was that they were allowing to be born, but were determined to make an honest effort toward meeting an apparent need. The prospective students and their parents knew even less. The assembled faculty had never heard of the idea before and had no prior experience even on the junior college level. Unlike today, there was at that time some differences of viewpoints on questions of curricula, faculty, admission requirements, and the like. Perhaps you can imagine that it was not too difficult to come to the conclusion that a dogmatic approach toward one particular objective would result in the greatest good to the greatest number. The application and development of this dogma has been successful. One of the penalties has been the growth of a defensive and sometimes paranoic attitude, but the rewards have been great. The concentration of effort

on one worthwhile objective has made possible, in our opinion, a degree of recognition and achievement that would have been much longer in coming, if ever attainable, without the dogmatic approach.

The essence of this dogma is that we shall provide a field-oriented, engineering-related technical education program of two academic years' duration, at the post-secondary level, of the broadest possible scope, and in the most completely integrated manner. Now we don't have the slightest doubt as to what these terms mean to us, whatever nuances may be applied by others. It is our purpose not to become a comprehensive community college, not to become a four-year institution, or even three-year, not to become a vocational school in the usual sense, not to be guided by industrial advisors - even though satisfactory placement and progress of graduates is a foremost objective - unless we are convinced that this guidance is sound educationally and professionally. In short, it is our purpose to do nothing but become the best two-year field-oriented engineering-related technical institute or technical junior college that dedication and effort can produce.

A measure of the need for and success of this effort is in the demand for graduates and in the satisfaction and progress of the graduates themselves. Company representatives from all over the United States come to that little institution in a North Carolina textile community to offer the most stimulating and rewarding opportunities that are simply fantastic to anyone who remembers with sympathy the difficulties of feeding children during the Great Depression. We have three graduates in Africa today in non-government, non-defense-connected work. A recent letter from one of them told of living in an air-conditioned trailer with more than the

comforts of home because he never had such acccmmodations at home. He told of the joy in his work, of the self-satisfaction of accomplishment, of the dignity possible through economic success, of the prospect of returning to the States in two years with a net savings well into five figures before the decimal point and after taxes.

I am not the least bit concerned that this student was not given a course in life adjustment, the liberal or the fine arts. Without the possibility of this program he would probably be working in a mill today at $45 per week, and he still would not have been exposed to these enobling concepts.

For good and practical reasons we find it desirable to influence our graduates toward employment within the State. They don't have to go to Africa or come to Florida to find these rewarding opportunities, although some do. Approximately two-thirds remain in the State. But we do feel that we can best serve our own industry with this particular technical manpower by first serving those engineering-related industries that are organized and that operate on a national basis. These are the people who can tell you if you really know what you are doing.

Does this sound as if we are opposed to the humanities? Well of course we are not. There is a continuing effort to expand the horizons by both formal and informal methods, provided this can be done without detriment to the primary objective. But we cannot be all things to all people. Perhaps others can. At the same time we accept as part of our responsibility the guidance of students toward other institutions and other programs more suited to their interests, needs, and capabilities. It is disconcerting to students and parents to suggest that Johnny should

consider a local junior college or industrial education center, but I consider it to be irresponsible, selfish, and unethical conduct to allow advice to the student to be influenced by desire or need for enrollment.

I have given this background so that you might discount to your own satisfaction any recommendations or suggestions that occur. I am not selling anything. I seek neither approval nor disapproval. I do hope that these remarks will be helpful.

Some of the elements of the problem that you face as administrators of terminal education programs revolve around the following:

1. The dissimilar concepts of the term post-secondary; that is, in the chronological sense and in the sense of academic achievement. What I mean by this is that a particular program should be designed to serve one concept or the other, not both. Alternative programs may be offered, but a particular program should either take them as they are from high school, with only minor remedial actions necessary, or should frankly require a defined level of academic proficiency in certain subject matter areas for matriculation.

2. The dissimilar requirements of terminal versus transfer programs. Enough has been said along this line but let me emphasize the view that a regular junior college transfer program, modified by the substitution of a few "practical" courses, does not constitute a terminal program of any value to anyone and is probably of the greatest disservice to the student. The thing should be either fish or fowl, no pun intended. The following three points will emphasize this either/or requirement. It is certainly possible in some cases to utilize the first in a sequence of transfer courses for the terminal program, provided in most cases that

subsequent courses in the same subject matter area but of special orientation and scope are included. It is sheer nonsense to allow only the first semester of a two-semester transfer chemistry sequence and it would make even less sense to include them both except in a chemical program.

3. The conflicts of alliance for individuals; with respect to professions, professional organizations, and educational systems. Certainly it makes a difference, in the technical area, whether the majority of the technical specialty faculty are oriented toward vocational, industrial arts, education, or engineering organizations.

4. The question of acceptance of responsibility by the administration for a quality program in terminal education. This point may be a little vague but it is very real and perhaps crucial. Some administrations will tolerate a terminal program if there seems to be enough demand from the community and from students. Toleration rather than promotion is reprehensible. The measure of disservice to the student is incalculable. There is one recent instance of a large corporation, having some experience with technical terminal graduates, embarking upon a greatly expanded program involving the need for larger numbers of these students than previously utilized sources could supply. They employed large numbers from numerous of the newer institutions having terminal programs that appeared, on paper, to be about the same. The result was technical chaos and mass incompetence. The industrial solution to such a problem is simple. Lay off the whole lot, the good with the bad. Discontinue the operation and start anew. In this case approximately one thousand men were permanently laid off, ostensibly because of contract cancellations.

Now whose interests have been served by providing these students with this kind of program, having image but not substance? Does not the administration of an institution have a moral and ethical responsibility to know what they are doing and either to do it as best they can or not make the attempt?

The example just cited is just the largest of a number of examples of the confusion ensuing from the too rapid extension of educational organizations into unfamiliar areas, and the too hasty adoption of terminology, symbolisms, descriptions, and pretentions with unknown connotations. This is one of the many services of professional accrediting organizations, anathema though they may be. There is, through curriculum accreditation, a measure of protection and assurance to the individual, to the employer, and to the public that certain minimum standards have been met toward the attainment of a particular terminal objective.

5. The conflicts of community responsibilities; with respect to the local community, the district community, the state community, the regional community, and the national community. If you intend to draw students from, and place graduates in, a local or district community of under 1.5 million, then it is unlikely that you can sustain a field-oriented program such as one in engineering technology. An industry-oriented or a job-oriented type of program might be more successfully and appropriately considered.

6. The conflict of costs. Departmental operating budgets for technical terminal programs, especially of the field-oriented type, must usually be higher than is palatable with other departments.

7. The previously touched upon question of whether the program should

be job-oriented, industry-oriented, or field-oriented. There is a difference, and this brings us to the question of criteria for excellence. To establish criteria for excellence requires a concept of level and then a concept of quality at that level. I suggest that in the area of technical terminal education at least two of many suggested levels be recognized and evaluated for adoptive purposes. Whether these are described as Industrial Technology for the Industrial Technician and Engineering Technology for the Engineering Technician is not so important as that at least two levels be recognized. It does not seem to be possible to define or describe these two levels in mutually exclusive terms. They can be categorized by attributes.

An Industrial Technician program can be categorized by the attributes of being job-oriented and chronologically post-secondary, as having a local or district community as the service area, as having a faculty that is vocationally-oriented rather than engineering-oriented, and as probably leading to a certificate rather than an Associate degree.

An Engineering Technician program can be categorized by the attributes of being field-oriented and academically post-secondary, as having a state, regional, or national community as the service area; as having a faculty that is engineering-oriented, as probably leading to an Associate degree, and as probably having professional accreditation of the curriculum.

To attempt to establish and maintain an engineering technology type of program in complete detachment from the engineering profession itself is a view that I find so incomprehensible that I will not attempt to comment upon it. I would like to point out that the American Society for Engineering Education has a very active Technical Institute Division

that is open to all comers purely on the basis of interest; that the Engineers' Council for Professional Development has an active Subcommittee on Engineering Technology Curricula of its Education and Accreditation Committee; and that the National Society of Professional Engineers has established an affiliate organization called The Institute for the Certification of Engineering Technicians which provides recognition for individuals by certification as Junior Engineering Technicians, Engineering Technicians, and Senior Engineering Technicians.

May I say in conclusion that I hope you will face the question of training level openly and head-on, and just as openly and head-on face the question of terminal versus transfer. It is no service to the student to cloud the issue with qualifications as to partial transfer credit. He should make a value judgment based upon his own circumstances. He should, if necessary, compromise tentatively with ambition. He will have to do this outside of your doors whether or not you force him to do it inside. Circumstances and motivation may change. Fortunately in this country it is possible to redirect the educational effort. But the initial choice must be made.

The biggest single problem in technical terminal education today is lack of enrollment. I hope some of these remarks will help you in this respect. The institutions which do not have this problem have one thing in common; they maintain quality programs and openly and honestly recognize the function and purpose of these programs.

EXCELLENCE IN ACTION - NURSING PROGRAMS

Mildred Tuttle, Director
Division of Nursing
Kellogg Foundation

For the past 25 years the Kellogg Foundation, through its Division of Nursing, has assisted many projects designed to improve the practice of nursing through preservice, in-service, and continuing education programs. These activities have ranged geographically from Canada and the United States to Mexico and South America. The Foundation has been concerned about the quantity and quality of educational and service programs in nursing and has attempted to make a contribution toward furthering these objectives. The Foundation's current interest in the associate degree nursing program is one of several major projects in which the Division of Nursing is presently engaged.

In 1958, the Foundation, stimulated by the Montag report of the Cooperative Research Project, began an exploration of the associate degree nursing program to determine the possible need for an expansion of the program as a way to augment the nation's needs for nursing services.

In April, 1958, the Director of the Foundation's Division of Nursing met in New York with a group of persons knowledgeable in the fields of junior college education and nursing education. This group identified problems relative to the expansion of the associate degree nursing program. These were:

1. Lack of leadership within certain states in general education and nursing education.
2. Lack of faculty prepared to direct and teach nursing in the junior college associate degree program.

3. Lack of preservice and in-service education programs for new and existing nurse faculty members.
4. Inflexibility of state boards of nursing to permit graduates to take the examinations for licensing purposes upon graduation from the associate degree nursing program which is shorter in length than the typical three-year hospital diploma program.
5. Inability of junior colleges to employ faculty for a planning period prior to admission to the nursing program.
6. Lack of over-all state planning for the development of educational programs based upon the needs of people in the community.
7. Limited consultation available to assist existing associate degree nursing programs with curriculum problems, and to help other colleges in establishing an associate degree nursing program.

The group suggested criteria by which to assess the ability of a state to undertake the development of the associate degree nursing program and listed a dozen states which at that time met the criteria.

The group also identified four major needs:

1. The need to interpret the unique aspects of the associate degree nursing program.
2. The need to recruit and prepare faculty through preservice and in-service education.
3. The need to continue to assist the colleges participating in the Cooperative Research Project.
4. The need to supplement the existing consultation services of the National League for Nursing.

As a result of this and other exploratory visits and conferences, the Director of the Division of Nursing of the Foundation prepared a plan, for Foundation consideration, to assist four states with the orderly development and expansion of the associate degree nursing program. The plan was approved, and funds were appropriated by the Foundation's trustees. The states selected by the Foundation for its initial assistance were California, Florida, New York, and Texas. The project activities in each state included:

1. Support to the State Department of Education for consultation services to junior colleges plus funds to assist a limited number of colleges with a planning period prior to the admission of students.
2. Direct assistance to one junior college to serve as a curriculum development center.
3. Direct assistance to a university for a graduate program to prepare faculty for associate degree nursing programs.
4. Assistance with in-service education activities for junior college faculty and hospital nursing service personnel in the area of the college.

The project will soon begin its fifth and final year with Foundation support. Excellent progress has been made. The number of associate degree nursing programs has increased through an orderly and planned course of action. In each state there has been a steering committee which has charted the course. Criteria have been established for granting funds to junior colleges for the planning year. Each state steering committee has approved all planning grants to junior colleges. The steering committee has provided a communication method for keeping key people currently informed

about project activities and studies which are on-going or contemplated. The experiences in the four states have already demonstrated that a state steering committee is essential to the orderly development of a state-wide program in junior college education for nursing.

During the year just being completed, there were 71 nurses enrolled in the graduate program at UCLA, University of Florida, and Teachers College. This program prepares faculty for associate degree nursing programs in junior colleges. Thirty-two will complete the program this summer. It is estimated that 70 to 75 will be enrolled during the 1963-64 academic year. Several other universities state that they are preparing faculty for junior college nursing programs, but information is lacking about how this is actually being done. The three graduate programs in the project states meet the credentialing requirements of the state for teaching in a junior college, and the programs include observation and practice teaching in a junior college having an associate degree program.

Recent information sent to the Foundation from California, Florida, and New York indicates a need for 88 additional faculty for 1963-64; this includes 24 replacements of faculty and 64 new faculty positions. These figures clearly illustrate the most crucial problems, nation wide, in the development and expansion of the associate degree nursing program.

The four states participating in the Foundation-assisted project have, with the help of the American Association of Junior Colleges and the National League for Nursing, taken deliberate and positive steps to interpret the associate degree nursing program to teachers of nursing and to recruit them into a preparation program (graduate or in-service). In spite of nation-wide recruitment publicity, only one educational

institution is graduating a significant number of students from the master's or doctoral programs w: are prepared to direct or teach in an associate degree program.

In contrast to the faculty shortage for associate degree nursing programs, the programs themselves are progressing rapidly. For example, in California, Florida, and New York, a total of 2,7770 students were enrolled during the 1962-63 academic year. Approximately 750 have or will graduate this summer with a total of 2,184 having completed the program. There is evidence that a high percentage of the graduates are presently employed in hospitals in their local communities.

There are sixteen associate degree nursing programs in New York State, four of which recently completed the planning year. There are now twenty-nine programs in California, five of which will admit their first students this fall. There are ten programs in Florida, four of which will admit their first class in September. To date, Foundation funds have made it possible for thirty-one junior colleges in the four states to employ a director and one or more instructors for a planning period prior to the admission of students.

The pursuit to excellence in the associate degree nursing program is directly related to the preparation and competencies of the faculty. The level and scope of nursing practice will not exceed the kind and amount of education that precedes it. The contribution of the nurse to society is, and will continue to be, in direct proportion to her ability to acquire, assimilate, and apply knowledge.

The associate degree nursing program is growing at a more rapid rate than the hospital diploma programs and the baccalaureate degree programs. It represents an exciting new venture in education for nursing. It requires

faculty who, themselves, are highly competent practitioners of nursing and who are skilled, imaginative, and creative teachers.

A significant amount of investigation, study, and research has been undertaken in the project states during the past four years. One piece of research which is making history was conducted by Marie Seedor, of the Teachers College project staff. Miss Seedor has produced a teaching unit on Asepsis which can be used with a teaching machine, and which has recently been published in scrambled textbook form. Miss Seedor is currently working on programing the first-year course of fundamentals in nursing which is taught at the Bronx Community College in New York. This college is one of the centers used by the graduate program at Teachers College for graduate students. The New York project group has also experimented with the use of television in the clinical nursing laboratory. This has been reported by Dr. Robert Kinsinger. Teachers College is currently studying the Professional Laboratory Experiences in the Preservice Preparation of Teachers of Nursing for the Associate Degree Program. The UCLA project staff is studying The Beliefs and Practices of Community College Faculty in Nursing and The Use of Clinical Facilities. At the University of Florida, the staff is studying ways in which graduate students may receive more direct experience in the junior college setting. Examples of other studies completed or under way in project junior colleges with the associate degree nursing program include:

Clinical teaching by closed circuit television

Field testing Asepsis programed instruction

Field testing mathematics programed instruction

Admission scores in relation to personality traits of dropouts and graduates

Attrition rate in relation to admission and selection tools

Student achievement levels at end of each semester in light of objectives

Development and use of new laboratory manuals

Controlled experiments in growth and development sequence

Development of programed instruction and other auto-instructional devices such as colored slides and coupled tape recordings

Experimentation with varying teacher-pupil ratios for teaching in clinical area.

Throughout the entire five-year period of this project, there have been opportunities for project personnel from the four states to meet in conference to exchange information, report on research activities, discuss problems and suggest ways by which the total project might move forward. There has also been a Steering Committee to the Four-State Project composed of two persons from each state. This Committee has been primarily concerned with recruitment of faculty, preparation of a final report, and the plans for the transition from a Foundation-supported project to self-support.

During the past year the State Department of Education in California made a film of 75 slides illustrating the progress of a student throughout the associate degree nursing program. The film is entitled "Nursing: The Junior College Doorway." A second piece of interpretative material prepared last year was a 26-minute movie in color entitled "An Idea With a Future." This film was made at the Rockland Community College in New York State. These films are being widely used to interpret the associate degree

nursing program. They are also used to stimulate teachers of nursing to seek employment in a junior college nursing program.

At the third conference of the Four-State Project personnel, the group identified the highlights of the project to date:

> The discovery and development of new persons with interests and abilities in the associate degree nursing program, the establishment of a state plan for the orderly development of the associate degree nursing program in junior colleges; the flexibility of the junior college and the encouragement of experimentation and research; the contributions of the associate degree nursing programs to other educational programs in nursing; the influence of the associate degree nursing program upon the improvement of nursing services in hospitals; the interest and approval of the colleges for the planning period in the associate degree nursing program and the desire to use this procedure when introducing other major programs into the college; the positive value or support by a "name" foundation in program development in the state; the good organizational structure of the project making possible the securing of additional grants to support experimental projects such as the use of television and programed learning; the planning period prior to the admission of students enabling the program to move forward rapidly; the strengthened relationships between nursing education and nursing services through the associate degree nursing program; and the help received by faculty visitations to well-established, on-going programs.

At the final session of the two-day conference, the "future" of the associate degree programs in nursing in the four states was discussed; and certain predictions were made. The predictable activities were:

Publications or reports of experimentation and research and the final report of the five-year project; ways and means to use visual materials (film, scrambled text, autotutor, tape recordings); and on-going research with programed learning, use of television in teaching, etc.

The less predictable outcome of activities for the future were:

Continuing communication of persons in associate degree programs; helping new programs through consultation; capitalizing on the special services and resources available during the five years of the Foundation project; preventing the associate degree nursing programs from becoming the traditional program of the future; keeping objectives in focus, avoiding reverting to tradition when under pressure of a situation; continuing studies of teaching methodology, student-teacher ratios, etc.; applying innovations developed in the "demonstration centers"; recruiting and preparing faculty; starting some programs without waiting for ideal conditions; and enrolling larger numbers of students for greater impact of the movement.

Data is currently being collected in each of the four project states which will be included in a published report at the termination of the five-year period of Foundation assistance. It is anticipated that this report will make a significant contribution to the literature on associate degree nursing programs in junior/community colleges.

The experiences of the Foundation in working with the project personnel in the four states have increased our understanding of and confidence in the associate degree nursing program and have led the Foundation to additional commitments in Indiana and in Kentucky for the establishment of associate degree nursing programs in university regional centers. Consideration is also being given to assisting the State of Illinois with a program similar to those in California, New York, and Florida.

EXCELLENCE IN ACTION - GUIDED STUDIES

Gordon B. Pyle
Instructional Dean and
Dean of Academic Studies
Miami-Dade Junior College

The junior college which attempts to serve the needs of higher education in its community moves along a difficult and complex path of many branchings. One of the first difficulties is a conceptual arteriosclerosis--a hardening of the categories--about what constitutes higher education. This problem stems from the fact that many people both within and without the profession continue to think of higher education along classical lines. They fail to recognize that our increasingly complex industrial society necessitates more sophisticated operations and more highly educated personnel in a growing number of occupations. It should be obvious that these new needs demand a type of higher education which differs in some respects from the traditional academic program. It should be, but it is not. Junior college leaders must explain the new need, new concepts and new programs not only to their own faculty, but to the lay public as well.

When new junior colleges are developed they are torn by certain harsh facts of education life. They:

1. Need to attract and hold students
2. Need new kinds of programs that have not traditionally been considered a part of higher education
3. Are confronted by community and professional mores that often prefer a standard academic program
4. Need to become accredited
5. And need to develop a "good" public image.

The country needs new skills, but the new occupational programs are looked upon with suspicion. The college needs more students, but the academic faculty wants high standards. The new college wants a good public image, but it is not accredited and it offers programs not a part of the traditional pattern.

If the faculty maintains high standards and in doing so fails a large percentage of the students, the college may become accredited, but will probably damage its image in the eyes of many within the community. Financial problems may then develop. If, on the other hand, the faculty maintains lower standards, it may not become accredited and will damage its image in the eyes of others in the community. Financial problems may also develop in this case. As an old Hawaiian patriarch is alleged to have remarked, "It is difficult to be a chief when the gods are changing."

How can community colleges, as "open door" colleges, meet the higher educational needs of their communities and serve the wide range of abilities that exist among their students? Of course what we have called a broad curriculum is part of the answer. The real question here is "How broad is broad?" Should we, on the grounds that the college has more "holding power", attempt to meet all the educational needs of the adult community? Should we limit and exclude those who do not have a high school degree or equivalent certificate? Should certificate programs be introduced as a part of the college curriculum? Should only collegiate level technical programs be introduced or do "vocational courses" also have a role to play? Where, in an open door college, do we draw the line?

Some colleges have resorted to selective standards of admission, others have opened the doors and then engaged in educational slaughter.

Still others have opened the gates, beaten the bushes and then cajoled the faculty into lowering the standards.

Some institutions have created highly restrictive probation and suspension policies, apparently on the grounds that this may throw a scare into the weaker students and cause them to apply themselves more effectively.

Other colleges have followed more liberal policies of probation and suspension. According to the results of a study conducted by Dr. Raymond E. Schultz, there seems to be little difference in effect (as far as motivation and eventual graduation is concerned) between the highly restrictive and the more liberal policies of probation and suspension.[1] Dr. Schultz objected to the general lack of assistance and advice given to students placed in these categories and made three suggestions for junior colleges desiring to create optimum conditions for success:

1. Require students on academic probation to utilize student personnel services. Under this plan, any student who is placed on academic probation would be subjected to certain services provided by the institution and having as their focus (a) diagnosing factors which appear to be responsible for a student's difficulty, and (b) to the extent possible, setting up a program for removing these difficulties. . . .
2. Restrict the course load which may be taken by entering students who are poor academic risks. . . .

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[1] Schultz, Raymond E. "The Impact of Academic Probation and Suspension Practices on Junior College Students" Junior College Journal Vol. 32, No. 5, Jan. 1962.

3. Replace probation with required student personnel services for those who are experiencing academic difficulty.[1]

These suggestions were one factor which, during the administration of President Kenneth R. Williams, led to the development of the Guided Studies Program at Dade County, now Miami-Dade, Junior College. In some respects the program stops short of the Schultz proposals (probation has not been eliminated), but in others it goes beyond them (honors and independent study are included).

It should be noted that while the Guided Studies Program introduces some non-credit courses into the college curriculum, it is not designed as a solution to the problems raised earlier concerning how broad junior college programs should be. Those questions while important and perhaps critical are ones of degree as far as the Guided Studies Program is concerned and lie beyond the scope of this paper.

The program as it was designed by the Miami-Dade staff and as it has developed under the leadership of Chairman Charles Strattan and Frank Branca is a comprehensive effort to deal humanely and realistically with the whole range of student abilities that appear in an open-door college. In the rest of this paper I will attempt to give a brief description of the program, the findings of some initial research on it, and a few hypotheses which may be drawn.

Nature of the Program

Guided Studies actually includes four different programs (Honors, Independent Study, Reduced Load and Basic), each of which is being

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[1] Ibid, P 274.

developed for students whose level of achievement (determined by various means) indicates a special approach to the attainment of their educational goals may be desirable. The covering term, Guided Studies, was chosen because students enter the programs on the advice of counselors who assist in such tailoring as may be desirable. The faculty also felt it was important to avoid distinctive labeling of students if possible.

The Florida Statewide Twelfth Grade Testing Program (if taken since 1962) is used to determine whether or not a freshman should be permitted or required to take one of the Guided Studies programs. The School and College Abilities Test is used as an alternative when the Twelfth Grade testing scores are not available. These tests apply to all entering freshmen regardless of race, color or creed, and if they fall below 150 on the Twelfth Grade Test, they are "expected" to take some of the non-degree or remedial courses. No transferable credit is given for such courses.

Guided Studies include:

1. Students working for honors. (Students seeking this distinction may be scheduled in honors sections or may meet in special groups in addition to their regularly assigned class. Other students may achieve honors by working on special projects under the direction of their regular classroom teacher.)
2. Students working on a basis of independent study. (This

will be a highly selective program based on ability and special needs. Students in this phase of the program will need to be especially oriented to the problems, requirements, and responsibilities of independent study and advanced placement.

3. Students taking a reduced load (thirteen hours or less) because they have been placed on probation, or because of low twelfth grade test scores.
4. Students taking non-degree courses in reading, writing, mathematics and educational planning because their scores fall below 150 on the Florida Statewide Test or because they have been placed on probation.

Other matriculation standards based on Senior Placement and SCAT tests are established for certain courses--notably in the science area. For example, one must obtain a score of 350 on the Twelfth Grade Test in order to schedule certain engineering courses. While the latter standards are not a part of the Guided Studies Program, taken together with it, they constitute a policy of selective placement after admissions. This preserves the open-door college and assures the student of a reasonable chance for success in the various programs. Of course, not everything depends on the tests--previous records, teacher evaluations and the student's performance in assigned courses at the college are taken into consideration early in his career.

Much interest has developed in the Basic Studies or remedial portion of Guided Studies because this phase has important implications for the open-door, who should go to college, and the questions raised in Dr.

Schultz's article. Students in this program take basic courses in reading, writing, mathematics and educational planning.

Faculty in these courses need particular qualifications and except for the guidance sections should be selected by the Chairman of Guided Studies. He does, however, consult with the chairman of related fields in order to select the best persons for inter-divisional use.

Students in Basic Studies are block-programed so that they will have four instructors in common. In the beginning of the year, the students are given the Guidance Test Battery (SCAT and Nelson-Denny Reading Test) to determine their achievement levels in the various areas. Around the fifteenth week in the semester, a re-test session, using alternate forms, is administered. With these results available, at least one formal staff session is held at which time the mathematics, reading, writing and planning instructors review the students they have in common, making comments and suggestions concerning the programs of the individuals. During these first weeks, the students have met with regular Guidance Personnel for group work in the Basic Planning sections. In these classes students are advised concerning their study habits: strong and weak points are discussed and alternative educational goals are evaluated in light of this evidence. If their difficulties can be pinpointed and they make sufficient progress in their remedial work, they may be advised to begin taking courses in a degree program of interest to them. If not, they are encouraged to undertake a self-evaluation in which the opportunities of alternative, certificate and vocational offerings of the college and nearby institutions are brought to their attention.

Statistics indicate that students initially select an academic program in about eighty percent of the cases. This is probably due to a cultural bias in favor of the more traditional program. Sometimes those who have chosen Pre-Medicine begin to see satisfactory alternatives as a Medical Technician, Nurse or Medical Secretary. Those who have chosen Engineering may turn to Engineering Technology or other less demanding opportunities related to Engineering. After the fifteenth week re-tests have been given and a staff evaluation made, the student receives professional advisement in the Basic Planning sections and plans his program for the following semester. At the end of the semester, additional sessions are held and final plans made.

Effects of the Program

Initial studies seem to indicate that approximately ninety percent of the students falling below 150 on the Senior Placement Test were failed out of the College during the first year before Guided Studies was created. In the Fall of 1962, the Guided Studies Program started with a registration of 356 students in the Basic or Remedial Program. Seventy-seven students who had applied for admission and been advised that their test scores indicated the advisability of their taking the Basic Studies Program failed to register. A sampling of 23 students in this category indicated the following reasons for not registering:

NUMBER OF STUDENTS	REASON FOR NOT REGISTERING
6	Decided to attend another type of institution
6	Decided not to attend college
3	Financial difficulty
4	Desired not to take the program offered
4	Other

One of the counseling techniques used in the Basic Planning classes is to invite representatives of the Lindsey-Hopkins Vocational School and Florida State Employment Service to discuss vocational employment opportunities with the students. As a result of this counseling, 91 students withdrew during the Fall Semester of 1962 for immediate employment or to begin specific training programs offered at Lindsey-Hopkins.

Of the remainder of the Basic Studies students, 89 finished the semester, but did not re-register, indicating before they left that they planned to enter employment, the military service or some vocational institution. One hundred and seventy-six students made out programs for the Fall Semester and one hundred and sixty-one actually did register. Of these, 75 registered in academic programs, 66 entered Special Degree Programs, 14 entered Technical Programs, and 6 took a second semester in Guided Studies. A check on these enrolled students at the end of the Spring Term indicated that approximately sixty-seven percent had made 1.5 or above in the academic program, sixty percent achieved this Grade Point Average in the Special Degree Program, and seventy-five percent in the Technical Programs. The students who repeated Guided Studies showed no appreciable gain. Of the 161 students who have

taken Basic Studies and re-registered at the junior college, 155 registered for Degree Programs. Approximately 120 of these had originally indicated an academic studies choice. Since only 75 apparently registered in Academic Studies, this indicates that approximately 45 had altered their goals from the Academic to the Occupational Programs. Counselors report only one change in the other direction.

A random sampling of 34 students enrolled in Basic Studies during the second semester of 1962-63, indicates that the reading level average for the group was tenth grade, three months, upon entrance and twelfth grade, five months, after the completion of one semester. This gives an average improvement in reading of two years and two months.

No studies concerning improvement in mathematics are available at this time, but a comparison of the quantitative sections of the School and College Abilities Test, Form 1A, administered at the beginning of the semester and Form 1B of the same test given towards the end of the semester yields some information. In the quantitative phases, on the basis of National Norms, there was an average gain of twelve percentile points between the first and the second test. Within this group, the white students showed a gain of 12.5 percentile points and the Negroes, 10 percentile points.

Conclusions

The Guided Studies Program has been in operation for only one year and many studies need to be made concerning its potentialities, cost to the College and effectiveness in serving students. Some tentative hypotheses concerning its operation, however, may be advanced at this time.

1. It will remove approximately ten to twelve percent of the low achievers from regular degree programs until their difficulties can be analyzed and possibly corrected. This will preserve the open-door college and permit the regular classes to operate more effectively.
2. The majority of students in the program, having greater insight into their interests and abilities, are successfully guided into certificate programs or into industry.
3. Of the students who register in the remedial phase of Guided Studies, a significant number (approximately twenty-eight percent in the Spring of 1963) subsequently enter degree programs at the College and achieve a 1.5 Grade Point Average or better.
4. A substantial number of those students who successfully entered degree programs after one semester in Guided Studies altered their goals from Academic to Technical or Occupational Programs. It, therefore, appears that the program is at least moderately successful in overcoming the cultural bias in favor of academic programs.
5. By being helped and guided into programs where they may succeed, students attain a feeling of achievement and improve the quality of their performance in each of the programs.

In doing all the things mentioned above, the Guided Studies Program, in all probability, improves the holding power of the College and consequently its income and public image while maintaining standards of excellence throughout.

EXCELLENCE IN ACTION - REHABILITATION PROGRAMS IN JUNIOR COLLEGES

David V. Legate
Coordinator of Rehabilitation Program
Florida Institute for Continuing
University Studies

I am delighted to be here this afternoon for two reasons. One, I am on the other side of the fence this afternoon. Usually I am involved in organizing this kind of program and seeing that the speakers are on time, and that the program runs smoothly. It is refreshing and relaxing to be on the other side and not to be concerned with these organizational matters. The second reason I am delighted to be here is to call your attention to the role of the community college in the area of rehabilitation. If you will look to your left or right, count ten persons, approximately three have a disability.

The rehabilitation process is one of human engineering, that is, to find the disabled individual, ascertain his needs, and provide the necessary services. In order to discuss this process we need to distinguish between disability and handicap. A disability is considered a 'medical thing' as a condition of impairment, physical or mental, that can usually be described by a physician. The handicap is the measure of the loss of the individual's capacity. The rehabilitation process is concerned with these handicapping problems resulting from a disability rather than the disability itself. The results of rehabilitation are the restoring of an individual in order to attain his fullest physical, mental, social, and vocational usefulness.

In 1937 a refrigerator explosion resulted in an acute case of pneumonia for me. Until 1945, I was very much content with life - happy-go-lucky, very lazy, ver large (I weighed 260 pounds). We moved to Florida from the cold north and I enrolled in St. Petersburg Junior College. I was drafted in 1945 and my physical pointed out a collapsed calcified lung. I was classified 4F.

Do you know this feeling? During wartime everyone is doing his bit - the draft, rationing, and the big effort. A change came over me. I had had tuberculosis and didn't know it! I went through this with a 'I don't care' attitude. My grades slipped, my attitude toward my peers changed, my regard for my health disappeared, and my interests were modified. This would have continued except for a friendly dean at the junior college and my doctor. He talked in terms of losing weight, regaining my proper social perspective, and outlines of the future. In my day when the atom was the smallest known entity, tuberculosis was a dreadful social disease. It had to do with filth and slum settings. It was a communicable disease - no one married and raised a family - the arrested stayed away from society. Through counseling my doctor was able to help me see these foolish fears and together we planned a regime of moderation. I received an invitation from the Division of Vocational Rehabilitation to come and talk. They informed me that I was eligible for service as a client. Transferring from junior college to the University of Florida I was continually counseled by the Division of Vocational Rehabilitation and upon graduation I was considered a closed case.

In my present role as Coordinator of Rehabilitation Programs, it is my job to organize and conduct courses of training for rehabilitation personnel. Some of these professions are therapist, rehab counselor, special educators, physical education personnel, nurses, rehabilitation secretaries, and various staff development programs for individual rehabilitation agencies. Much of this training takes place at the local level. Whether it be a heart seminar for employment personnel or reemployment of the cardiacs, an institute on prosthetic devices for vocational rehabilitation counselors or a short course for rehabilitation secretaries, the community has become involved.

To develop this further I would like to use the three areas in the community college, the transfer, the terminal, in which you are interested primarily today, and the community or adult program. Last fall I surveyed the 13 Florida vocational rehabilitation offices to find out the extent of academic use of the junior colleges by their physically handicapped clients. From the 100% reply to this survey, I found that 134 DVR clients are involved in junior college training. Of this number, 100 were involved in the transfer program. The 34 remaining students were involved in the terminal program. Of these 34 students I found 16 in the technical education program. Sixteen physically handicapped men and women training for a technician's job. Some of the technologies were:

Electronics Technology
Drafting Technology
Engineering Aide
Forest Technology
Chemical Technology
Accounting Technology
Forest Management Technology

I should have included other questions on this survey. I should have attempted to find out the vocational goals of the 100 students in the transfer program as well as the goals of the non-technical students in the terminal program.

Let's examine these handicapped students who are actively engaged in the credit program. Why did they select a community junior college? They may have selected the community junior college because it was close to home and being close to home they were in a familiar setting. They may have transferred from the local high school to the junior college with many of their acquaintances. Aren't these some of the same reasons that non-handicapped students use in enrolling in junior colleges? One can extend this feeling of familiarity, this

feeling of still being at home, being looked after, into the academic terminal program also. My point being that physically handicapped students with the ability to do collegiate work enroll in colleges for the same reasons that non-handicapped enroll in colleges. They have one advantage over the non-physically handicapped and this advantage is the continual guidance as a client by the Division of Vocational Rehabilitation. In most junior colleges the guidance person advises all students. However, the clients of DVR and other rehabilitation agencies have a secondary counseling process. Together the school counselor and the DVR counselor can prepare the handicapped student, guide this student toward a better fulfillment of his own goals. This is the essence of the rehabilitation progress and the essence of the junior college.

From their research evaluating the occupational success and personal adjustment of 243 severely handicapped college graduates, as compared with 224 severely handicapped high school graduates, Mase and Williams conclude that:

> "The major conclusion that can be reached from the findings in this study is that once again, severely handicapped persons were found to be essentially the same as the general population. There are no major differences in occupational success between the severely handicapped college graduates."

Mase and Williams state further that the. . .

> "higher percentage tend to seek and find employment either in small local business organizations or in governmental positions. Once having found employment, however, their occupational success is the same as that of the non-handicapped."

Let's examine the junior college role in the community in terms of serving the rehabilitation agencies in a non-credit, continual fashion. Within every community are those health and welfare agencies dedicated to

helping handicapped people. These agencies are sometimes staffed by volunteers who, desiring to do a good job, need help in resolving this need. The professional staffs of these agencies are eager to continue their training, not for college credit but for increased professional proficiency. Just to do a better job. We have been unable to handle a request dealing with a training program for parents of brain-injured children. The requests involve instruction for parents from which they can better understand the diseases; the side effects and tangents these children will have; their relationships with these children; the needs for these children in school activity; and the needs for these children in society. The New School For The Special Child in Seattle has released a tape recording on Key Problems of Parents of the Special Child. The programs involve a lecture on the key problems of parents and the use of parent discussion groups, followed by an edited version of some 30 hours of recorded discussions of parents of brain-injured and mentally retarded children held last winter in Seattle. As a community center of higher education, the junior college can offer instruction in sociology, history, psychology, nursing, pre-medical, medical technology, and other areas which would benefit in making people better aware and developing a better understanding of the handicapped.

Many communities are vitally interested in developing rehabilitation centers within their hospitals or in a private setting. These rehabilitation centers become a community activity with every lay and professional group actively engaged. Here the community colleges can offer both physical and human resources. Meeting space for planning can be provided. The college staff can become involved in the training of many volunteers needed by the center, training in human relation, in clerical skills, and client care.

The college becomes a part of this community action where disabled people can come for treatment and therapy, counseling, work-evaluation units and employment placement. The junior college can offer local health agency administrators non-credit programs of training and staff development.

Communities are finding it very difficult for private and public agencies to come together and attack common problems as already illustrated as a development of a rehabilitation center or clinic as an example of this. There might be great need helped by one agency for this and a luke warm reception by others. The local community junior college can assume leadership, who can act as a catalysis between these groups with no particular axe to grind but to better inform people, to better educate people, and to offer staff development leadership to these groups.

Here is the rehabilitation process for handicapped students, the existing and future role of the community junior college in this process, and possible methodology for developing community service in this process.

THE PRICE OF EXCELLENCE

Harry M. Philpott
Vice President
University of Florida

Your Institute in previous sessions has considered the meaning of educational excellence, the problem of organizing for its achievement, and some examples of excellence in action. As in the pursuit of all values and desirable goals in life, you must now face the problem of paying a price for educational excellence. It is to this consideration that we turn today.

At the outset, let it be noted that we live in a society characterized by a general unwillingness to pay the price necessary for anything. One of the phrases which we hear most frequently today speaks of "the high cost of living". Each of us is quite familiar with spiraling costs, increased expenses, and the ever-present unbalanced budget. One of my friends--a university president--states that he spends most of his nights sitting up with a sick budget. There can be no denying the fact that ours is an expensive age in which to live and that the high cost of living is a basic reality of our present society.

Accompanying this fact is the deep-seated wish that the best things in life were free. You may recall the popular song of two decades ago which stated:

"Love belongs to everyone,
The best things in life are free!"

There is a residue of laziness in each of us which makes us wish it were so. The tragic fact of our situation is that so many people try to act as though this were true. The aim of modern salesmanship is to convince the customer that an easy payment plan for the commodity he wishes to purchase is the same

as no payments whatever. The rise in gambling and crime in America documents the fact that many people still believe it possible to get something for nothing.

In the field of education a subtle impression that the best things in life are free also manifests itself. Any poll will show conclusively that the American people desire an educational system of the highest excellence, but they prefer that this be obtained with an absolute minimum outlay of expenditure. Some of our teachers and administrators look upon their responsibilities as jobs to be measured in terms of minimum hours and the least effort possible. I am old fashioned enough to consider the educational profession a calling rather than a job and find it extremely difficult to understand why a person becomes an educator without a deep sense of mission. All of us are familiar with students who act as though the only requisite for obtaining an education is to enroll in an institution, live in its environment, and by some miraculous process of osmosis, absorb knowledge and understanding. If excellence in education is to be attained, we are confronted with an unending battle to destroy a prevalent American desire to get something for nothing. We must let it be clearly understood that nothing worthwhile in life is free. Though many people may bargain themselves away, may fall for damaged and soiled goods, may choose a lesser good because it is cheaper at the moment, we have an obligation to make clear to the American people that in the long run you get what you pay for.

There is a second difficulty that confronts us as educators in present American social thought. The late Archbishop Temple once said that life is like a vast store window in which pranksters have switched the price tags so that things of greatest value are priced as worthless trinkets--cheap trash appears

to be the most valuable. To the educator, whose main concern was described by William James as influencing eternity, the catalog of annual expenditures by the American people for various products and services must be a sickening account to contemplate. To place a higher value on means of escaping from reality than on the training of the intellect is a sad commentary on our times. To devote so much of our resources to the means of physical destruction and so little to the development of understanding between people is to court disaster. However, this is our value standard as demonstrated by our expenditures. It has been said that people are willing to pay for anything they want sincerely, so we must admit that educational excellence has not been deemed of sufficient importance by the American people. As educators, we have an obligation to contribute to a rearrangement of value standards held by the American people today. It is within the context of these difficulties that any consideration of the cost of educational excellence must begin.

Since all of you are educational administrators, it is not necessary to say a great deal about rising costs in our own field. Indeed, our efforts are sometimes so totally occupied with maintaining adequate support for mediocrity in education that we have little time available to think about support for excellence. In 1887 Michaelson performed the research which first calculated the speed of light. His research project was repeated in 1928 in exactly the same fashion but the cost was twenty times greater than the original experiment. The University of Chicago in 1940 allocated $100 of expense money to each biology teacher on its staff. Twenty years later, in 1960, the allocation had grown to $50,000 per teacher, and this was inadequate. President Emeritus John J. Tigert of the University of Florida has told me of the great elation felt throughout the University when the annual operating

budget of the institution passed one million dollars for the first time in 1939. More than fifty million dollars will be expended in the operation of the University during the current fiscal year. Instructional salaries are far below what they should be but have shown significant increase. The average compensation for all instructional ranks in 365 institutions reported in June by the American Association of University Professors was $9,283 for the school year 1962-63. This organization has adopted the laudable goal set by President Eisenhower's Committee on Education beyond the High School calling for a doubling of instructional salaries between 1958 and 1963.

Those of us who are now administrators and who started as teachers more than 25 years ago may be pardoned occasionally for some yearning for the good old days. My first position in a university in 1938 provided me with a salary of $1800 a year. I remember well a colleague moaning about my luck since he began in 1932 and taught for five years before reaching the exalted level of $1800. On the other hand, we have only to consider some of the salaries paid outside our institutions to have a totally different perspective of the problem. For example, two students who received the Ph.D. degree from our institution last year obtained positions in industry at beginning salaries in excess of that paid to their major professor, who had eighteen years of teaching experience. The cost of maintaining the present level of operation will continue to rise. The cost of moving toward educational excellence will require even greater expenditures. Add to this the expansion needed to care for the growing tide of students and we realize that quality education demands a much larger proportion of our American resources than we

have ever allocated in the past.

What then is the price of educational excellence? No seer can state this in terms of dollars and cents, but I would like to suggest a few guidelines for your consideration. Since educational excellence requires first and foremost the services of highly qualified persons, we must be prepared to pay salaries adequate to secure these people. The teaching profession at the close of World War II had a compensation base far below other fields when compared to the importance of our work. During the last twenty years we have achieved little more than to keep pace with the rising cost of living, and we have not been able to make the profession more attractive to young people. The vitality of the educational enterprise has been maintained because of the many fine individuals with a missionary motivation who were willing to sacrifice themselves for it. Let us hope that there will continue to be a large number of such people in the future, but in all justice to them, we must continue to press for salaries commensurate with their contribution to society.

Much has been said and written in recent years concerning the American system of higher education and that of the Soviet Union. The one spot in which we present an unfavorable comparision is in teacher compensation. I have talked with professors at the Unive sity of Moscow whose compensation is the equivalent of $50,000 a year in U. S. currency. The general level of university salaries is four times that of the average salary paid to workers in industry. I am not suggesting that we adopt this exact scale in our country but only pointing out that excellent leadership will not be obtained until teaching salaries are in a more competitive position.

Substantial increase in salaries will require several years of diligent work, but there are means at the disposal of any administrator to utilize present resources for the attainment of excellence in teaching. You can, for instance, cultivate and reward superior teaching within whatever funds are now available to you. In recent years, we have seen an increasing tendency in American higher education to establish the same level of compensation for all teachers with similar qualifications and status. It is very comforting to some administrators to tell their faculty members: "We pay all assistant professors seven to eight thousand dollars, depending on the number of years you have served with us in this rank." When additional funds make increases possible, these are doled out on an across-the-board percentage basis, and everyone shares and shares alike.

It is quite true that no objective scale has yet been devised for the accurate determination of merit in teachers. It is also quite true that a rigid salary scale based on rank and length of service spares the administrator the agony of defending subjective evaluations. But more important, such a policy prevents the institution from bringing in teachers of real distinction and enhances the mobility--outward--of the brightest and best who cannot long tolerate a salary system which makes them the equal of the mediocre. If your institution forces you into such a system, or if you are unwilling to take the consequences of making merit judgments in allocating your funds, you may as well forget about any goals of education excellence you envisage. Incidentally, I know of no position more difficult for the public to understand than that of some educational leaders who maintain that it is impossible to make valid merit judgments between teachers.

If making merit judgments for salary purposes is a difficult administrative task, it is still easier than the obligation we have to weed out incompetent or uninspiring teachers. I support fully the tenure system as a requisite for academic freedom and acknowledge that this will saddle every institution with some faculty members who do not meet average standards, much less contribute to excellence. Why should we dissipate our limited resources on advancing their salaries? Careful recruitment is essential to excellence, but the granting of tenure is even more important. It is easy to compromise just to have a warm body at hand or to escape the labor of finding a replacement. Being hard-nosed in such situations avoids surrendering our goal of excellence.

Rigid salary scales often grow out of a neat formula system of budget making. Someone determines that on a national scale $600 is required to educate each junior college student; therefore, every institution should start with this figure as the amount of money needed, whatever its program, its size, or any other factor. Let me make it quite clear that I approve heartily of developing formulae as a means of testing budgets, but I am firmly opposed to their use as a means of building a budget. If an institution requires $800 per student to achieve a higher quality of educational experience, it has an absolute obligation to seek this kind of support. It should also be expected to demonstrate by the quality of its work that the educational expenditure is both justified and desirable.

Any experienced administrator also knows that instructional costs vary widely between departments and programs. Competition for qualified personnel in some fields requires higher salaries for outstanding people than would be

the case for a person of equal worth in a different field. The type of instruction utilized, such as laboratory courses or lecture courses, will produce another differential in costs. Facilities and equipment also increase the expense of certain teaching functions. The administrator's task of making decisions in the light of the great variety of factors involved is quite difficult and never subject to solution by reduction to a formula.

If you have not already seen it, I recommend strongly for your entertainment and enlightenment an article entitled "Six Rules for Economizing in Public Higher Education" by N. M. Chambers, printed in the February, 1962, issue of The Journal of Higher Education. With tongue in cheek, Professor Chambers sets forth a plan for administering higher education that will certainly save money but which will also destroy any semblance of quality we now possess. By charging students just as much as we can collect, by paying faculty as little as possible and giving them a high student-teacher ratio, by never trusting the president as far as you can throw a dead cat by the tail, by placing full legislative restrictions around the operations of governing boards, by letting every state official have a finger in the details of operation, and by equating all programs on the same basis, he says that we will certainly save money! We will not, however, have an educational system and certainly not one of excellence.

Other possibilities now in the heads of the administrators which will assist in meeting the cost of excellence need to be mentioned. As reluctant as we may be to admit it, it is quite obvious that every institution will not be able to obtain excellence in every field. We are forced to select certain areas in which we wish to excel and concentrate resources on these. For example, colleges and departments in large universities show marked variation

in quality and distinction. No university in American history has ever attained distinction in all areas of work offered. A careful determination must be made by each institution of the specific programs in which it wishes to excel. Administrators are plagued by the desire to try to be all things to all men, but this simply is absurd in colleges today. In terminal educational programs, about which you are particularly concerned in this conference, you must pick out two, three, or four areas if special emphasis of excellence is to be realized. Correspondingly, you will have to rob resources from other programs to support those determined to be of greatest importance.

Even after areas have been selected, careful attention to the utilization of resources must continue to be given. The excessive proliferation of courses is one of the major deterrents to the achievement of excellencs in almost all American colleges today. It was with a sense of having reached the ultimate that I discovered in the catalog of my own institution a year ago that we had a three-hour course entitled "The Teaching of Political Science in College" and another three-hour course entitled "The Teaching of Political Science." I was not in the least soothed by the explanation that one course dealt with junior colleges primarily and the other with senior colleges. I am unable to get off the ground in my own institution with this suggestion, so I offer it to you without any cost: Throw out every course in the catalog every five years and require the development of new courses with an automatic cut of fifty percent in number. I feel sincerely that a definite improvement in quality would transpire.

Critical evaluations of administrative procedures at frequent intervals will also help meet the cost of excellence. Some of these reforms must be initiated by governing boards and legislatures, but many of them can be achieved by the president and deans. Allocation of faculty to departments and of non-academic employees to programs ought to be reviewed each time a budget is made up since even in education, needs and demands change from year to year. A budget allocation to meet a special need has an unfortunate tendency to become a part of the permanent base of the department and will certainly be spent in some fashion. Substantial reserves for contingencies, centrally administered, will be most helpful in any program to upgrade specific areas at a given time.

These suggestions have been directed primarily to you as an administrator. It is equally true that other segments of the educational enterprise have a role to play in this desired development. The administrator is powerless unless the faculty shares with him the intense desire to excel in stated programs and purposes. The student body must be motivated by a similar desire. If students are willing to settle for "C" grades, spending just as little effort as may be needed to get by, and possessing no real zest for learning, there will be no improvement. The sympathetic understanding and support of the community or the constituency of the college is also a requisite.

Any program or development requiring substantial increases in cost will always meet serious opposition and criticism. We have an obligation to our constituents to help them understand that higher education is not a cost in the final analysis but an investment. We do not seek excellence for the sake of excellence itself but because of the contribution it makes to human personality and the society in which we live. The individual student must always be the most important consideration in any educational program. To devote

our resources to the improvement of human beings and the subsequent advance of society fulfills our greatest moral and spiritual obligation.

In line with this, it is important for us as individuals to recognize the obligations placed upon each of us. The English philosopher Gerald Heard, in a speech at Washington University several years ago, set forth the following virtues as being of fundamental importance in educational leadership:

(1) Willingness to work without public recognition for one's effort;

(2) Frugality in the continuing endeavor to escape entanglements of the material world;

(3) Continued training which refuses to surrender the search for enlarged understanding.

We must be willing to subordinate our personal interest to the advancement of our institutions. In this connection, it is well to recall the words of the late President of Harvard, A. Lawrence Lowell: "Much of the success of the administrator in carrying out a program depends upon how far it is his sole objective overshadowing everything else, or how far he is thinking of himself; for this last is an obstruction that has caused many a good man to stumble and a good cause to fall. The two aims are inconsistent, often enough for us to state as a general rule that one cannot both do things and get the credit for them." We are required to evaluate our progress not in terms of budgets, buildings, and numbers of students, but in the light of the highest intellectual, moral, and spiritual values. And, we must keep ourselves on the iine of discovery at all times, constantly searching for better ways of improving the development of our young people.

As a kind of footnote to this paper, I feel that it is important to state that the price of excellence can never be paid. As Browning reminds us in ANDREA DEL SARTO:

> "Ah, but a man's reach should exceed his grasp,
> Or what's a heaven for?"

Excellence is not a plateau to be reached at some time and then inhabited for eternity. Needs and conditions change. Knowledge is constantly expanding and no educational enterprise can ever expect to have a sense of having arrived. Excellence demands that our goals always be beyond achievement.

In an address to the first students attending Cornell University, Esra Cornell opened the University by stating: "There is not a single thing finished." This was not only true of Cornell at its opening but is forever true of every educational institution. It is particularly characteristic of the quest for excellence. There is not a single thing finished; the price can never be paid.